

Digitized by the Internet Archive  
in 2017 with funding from  
CLIR

<https://archive.org/details/alaskaspeciesacc00cade>







T. Cade  
1956-1959

Alaska

Species Accounts (Part 1)

Mammals

Birds –(Gaviformes through  
Gruiformes)



I. Cade  
1956-1959

Alaska

Species Accounts (Part 1)

Mammals

Part 1 (Continued through  
Part 2)



T. Cade  
1956-1959

Alaska

Species Accounts

Mammals







T. Code  
1957

Masmota caligata

10 June - Cape Beaufort -

One seen sitting on one of the long  
rocky outcrops just up the coast from  
Lig A.







Cade  
1956

Spermophilus undulatus

13 June Uniat, Alaska

Several seen or heard on the ridge up to Uniat Mt. Burrows were numerous in the area. One was on the road near the oil rigs about 1/2 mile E of air strip. It was very curious about the wheel and came right up - ran all around the machine, climbed up on the tracks, and investigated the bottom. When I got out it was only mildly frightened, but finally scampered off.







T. Code  
1957

*Spermophilus undulatus*

27 June, Umist - caught a fine adult in one of the live traps set on the road across from the 3 oil derricks near T8.

29 June, Umist - caught another adult in a trap set on top of a rock outcrop above T10.

6 July

Paint, Log -

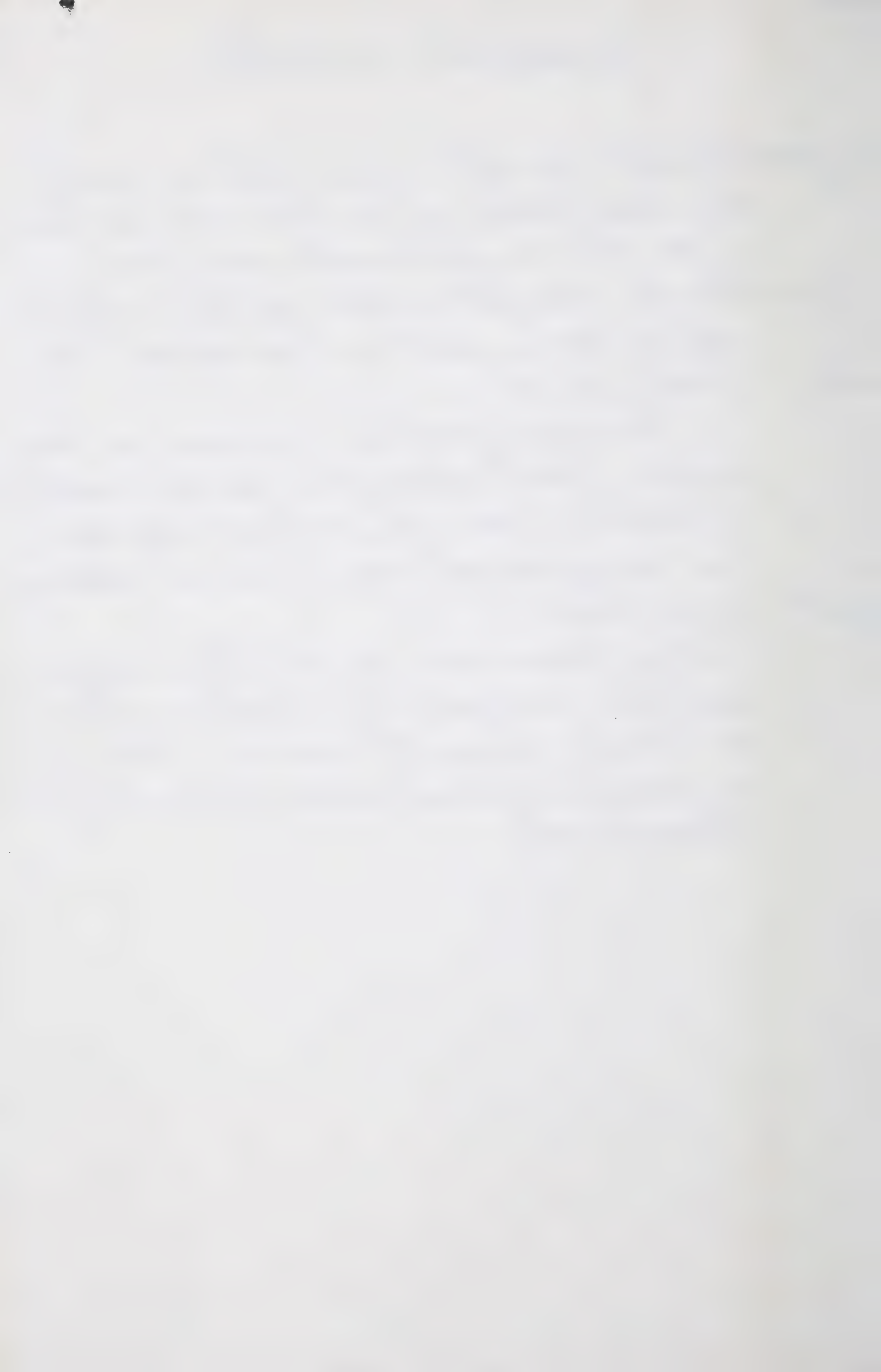
beavers rather common on the upper bank along the south side of Hotkelt R ca 1 mi above Logan. One individual seen & heard calling.

5 August

Jago Lake

Very common on all the ridges and dry areas of the benches. Also on banks along the river. Bloomin meadow ground seems optimal for this animal.







T. Cade  
1958

Spermophilus undulatus

- 27 June Coal Mine - Meade River  
Despite the good habitat conditions prevailing all across this country for ground squirrels and the frequent encountering of old burrows, I saw my first animal today on the left bank of the river at our first stop about a mile and a half above the Coal Mine.
- 28 June Saw one sitting on a high bank along the large lake near T 728.
- 30 June Several seen along the sandy bluffs fronting on the river below the village.
- 9-17 July Almost none seen yet in areas where previously there has always been some.
- 25 July Colville River - from Dolanagovich to August - only three individuals seen as heard on this stretch where previously they have been seen commonly.
- August Franklin Bluffs - Sagavaniviktok River - common all over the river terraces and on the bluffs.
- 17 August Obpilak River - seen commonly in the flood plain and on the old terrace. Occurs less commonly on the steep rocky walls of the valley.
- 22 August Jogo Lake - very abundant on the meadows and in flood plain - more common even than last year - 6-8 come to Jamesway regularly.







T. Code  
1958

Spermophilus undulatus

- 5 September Meade River - Coalmine - big adult  
was seen in the dune area  
along S shore of the large lake  
situated about  $1\frac{1}{4}$  mi NW of village.  
Males were there and also some  
around the village.
- 6 September Meade River - seen commonly in  
the high banked dune areas around  
lakes and along river. Much common-  
er now than in June, when few were  
seen.







Cade  
1959

Spermophilus undulatus

- 2-22 May Pitmegea River - squirrels in limited numbers have been seen on most of the local ridges, on gravel benches along the river, and in gravelly areas at the mouth of the river.
- 27 May Pitmegea - seen every day in the favored localities - gravel bars along the river and ridge top tundra barrens.
- May Peters - Schvader - heard several times in rocky areas on the west side of lake opposite camp.
- June Schvader Lake - very common in the meadow areas behind Mac-Saughflips cabin.
- 4 June Peters - Schvader - seen in all areas covered - not abundant.
- 24 June Uniat - none seen in any area where previously observed.







T. Cade  
1958

Dicrostonyx groenlandicus

30 June Coal Mine - Meade River

Two adult males were caught today on T1 in tussock-heath-dwarf shrub complex. This is our first contact with this species here this year.

July

A subadult or young adult ♂ was caught on T3 today.

July

Uniat, Alaska - one adult caught on T3 today.

Harold Griffin reported that on an overland trip from Uniat toward Chandler Lake he saw many lemmings running away from the vessel on the long flat-topped ridges along the west side of the Chandler. He did not know what species, but the habitat sounds typical of Dicrostonyx rather than Lemmus. Also he saw about 10 fulmars in this area. The ridge traversed was about 20 miles long. The lemmings were common enough to catch the attention of several people in the vessel off and on during the day. This was on 15 June.

1 September Barrow - an old nest with the fine feet  
• other remains - few -  
of varying lemming was found in the area  
where Schultz's sample plots are located.







Code  
1957

Lemmus trimaculatus

3 May

No fresh sign seen in the can area south of camp. Covered about a mile and back. Ground only 20% exposed - mostly still covered with snow. Lots of old sign from last summer but no fresh cuttings, no fresh pellets, no tunnels in snow. Saw a few fresh looking pellets on the first low ridge beyond the cans.

1 June

Went out with Buck in a weasel west of the village ca 4 miles & back along the beach bluffs. Ground about 50% free of snow. There was much old lemming sign, but we saw no lemmings and no certain fresh sign. This was in the area where the village kids have caught a few.

2 June - none seen on a late evening weasel trip out past the gas well and back.

4 June

Abundant fresh sign at Wainwright. Many used runways, green fresh pellets, tunnels under the snow. In 2 hours 6 kids brought in 31 lemmings. Animals mostly on high-center polygon soil.

5 June

4 animals seen and 2 caught along an in vicinity of Inuvik River. Fresh sign common along the Inuvik.

See General Account for these dates.







T. Code  
1957

## *Lemmus trimucronatus*

8 June - Barrow

On the old beach ridge immediately by S of the site, a lichen-quars-heath area - sparse vegetation, some frost boils - snow off but hanging on both sides. - In 500 paces along the exposed ground-snow in two phases I saw only 1 doubtful fresh sign - a possible tunnel under the snow. Old sign everywhere - vegetation cut down from last year - etc.

On Central Marsh - where ca 10% of ground is exposed from snow - very wet and soupy all over - in 200 paces along the exposed ground-snow in two phases I saw no fresh sign but again much old sign.

Half Moon - Three

In a grass - Carex meadow with some flat-top polygams and low erect stuff with fair drainage - dead stems 6-12 inches - wet ground in 400 paces got 14 fresh sign or recent winter activity - trails with fresh droppings or winter nests etc.

On higher ground near the river - Cassiope, Sargas - Ledum - Carex with low mounds - 100 paces goes no fresh sign but hard ground to interpret. There sign may have been Microtus or Lemmus or both. May saw one mouse near the house that looked like Microtus.







Code  
1957

B Lemmings trinuerosus

8 June - Cont.

At the lake NE of Tephe Kput - on high  
center polygons - Ericophorum tussock-herb-  
lichens - dwarf shrub complex - excellent  
ground cover - snow off. Considerable  
caribou disturbance - paired lichens etc.  
500 paces gave 10 fresh signs - holes in  
thawed dirt, fresh droppings, new trails etc.  
But this may not be a fair index because  
of good vegetation that obscures signs.

The vegetation & topography looked good  
for both Microtus and Lemmings. This  
type of ground is very extensive between  
Balkett and Dease Inlet, and I believe  
it may have a substantial residue  
of last year's peak population. On such  
ground, the animals have not only sufficient  
food but excellent cover even with the  
snow gone.

10 June - Breakfast area -

None seen in the little while we were on  
the ground at Agiak and mouth of the Pitmegea,  
but microtus signs were seen at both places.  
Of the two places, the Pitmegea seemed to have  
more recent signs but this based on only  
little examination of the ground. Henry found some  
old owl pellets at the Pitmegea that had  
microtus remains.







T. Code  
1937

## *Lemmings trimerevatus*

10 June - Wainwright, Alaska

Soon after we got into the village, some of the kids brought in 3 cans full of live lemmings. We bought 21 of them for the lab at \$0.4 each. The rest were in too poor a condition to keep. Earlier Mr. Crawford had sent back to Barrow a second batch of 200 dead ones.

11 June - Set out the transects this morning and looked over the general area. Saw half a dozen animals running through tunnel or along run ways. All the high ground - high center polygons with tunnels - is literally covered by runways and freshly dug tunnels in the dirt. There is a good deal of willow matting in the vegetation, and the runways and tunnels are frequently enclosed around patches of willow brush. The vegetation - grass and sedges - in the troughs of the polygons is mowed down just as at Barrow after a high, the vegetation on higher ground - *Criophorum* tussocks, even willow, sedges etc - is closely cropped in many places, but good regeneration seems to be starting. These animals give the impression that they comprise a comfortable population that will be able to continue increasing through this summer and reach peak next







T. Code  
1957

## Lemmus trimucronatus

10 June - cont.

spring. Predation does look like it will be serious this year, and these animals have much better cover, anyway, than a comparable population at Barrow would have at a similar stage of phenology.

The longer and earlier growing season at Umanuik also favors the lemmings because of its effect on vegetative regeneration.

The virtual lack of avols and the moderate numbers of jaegers present - even if they breed, will have little effect on the lemming population.

12 June

Caught 2 more by hand and saw a couple of others while viewing transects. Dig out some of the tunnels & holes in the turf. Six inches is as deep as they go, and most of the holes are less than 18 inches long. But there are lots of them in the tundra areas of high-e polygons. None in troughs. From the looks of the ground, old cuttings, etc., the animals must have been common in the ~~the~~ troughs during winter, and when the melt off came, they had to move up on higher ground. So the high centers are now supporting a population that was occupying a considerably larger total area. This may





Cable  
1957

## *Lemmus trimucronatus*

12 June

account for part of the present abundance of these animals on high ground and the ease with which the kids are able to catch them. Later some lemmings should move back into the troughs and marshes.

At Barrow Lemmings must do the same kind of movement to high ground out of the marshes, but there it must be on a larger scale because the marshes are more extensive, the high ground more restricted than at Wainwright. The ratio of high ground to spring inundated ground must be an important "limiting" factor on the maximum spring numbers of a lemming population. Where there is little high ground, there is less food available; a larger number of animals is exposed per unit area to predation by owls and jaegers.

15 June, Barrow, Alaska

In a 1½ hour walk around the canals S. of ARL, I saw one lemming, which ran into a deep burrow and could not be unearthed. This animal was seen on the high center polygon-rail blister area - at its S. edge adjacent to a sedge-grass marsh. One - possibly two - recent winter





Code  
1937

Lemmus trimucronatus

13 June - cont

nests were also found in troughs between the high centers.

15 July

Point Loo.

Lemming sign is not numerous or even common in this area, as we had been led to believe from Max's earlier observations at the village. Apparently there may have been a local abundance around the village itself on the spit where he was there - such a local concentration around villages is not unusual I have noticed in the past - but the tundra on the mainland side is generally rather poor in microtine sign. The Eskimos (Wamen) say both lemmings occur here, and I suspect also some of the other microtines, as the mirens provide a diversity of habitats. I have seen ground suitable for M. rufus and C. rutilus. I would estimate the microtine population in general here to be at a "moderately low" level but not at a "low low." No nesting jaegers were seen today nor do the Eskimos or Sigrit workers know of any. No owls were seen.





Code  
1957

Lemmus trimacronatus

15 July

Point Lay

Warren and his wife said the last time there were lots of weasels here was 4-5 years ago, when they were caught in late winter & spring fox traps. There were lots of "mice" that year too. During 2 hours of travel over tundra in weasel this afternoon not one microtus was seen. No evidence of recent "high" activity either as at Barrow few instances.

The general tundra and vegetation here is close to that at Wainwright and is much more complex than the Barrow situation. Along the river there are some knee-high stands of willows. The jaegers seen in this area seem to be more closely associated with the river and not primarily with the tundra community.





Cade  
1957

Lemmus trimacronatus

1-23 July Barter Island -

Max Brewer was at Barter Island on these days, and together with Col. Walter A. Wood, was able to make some observations on the tundra. During approx 2 hours of walking over the tundra they saw 4 lemmings - all juveniles. One jaeger and one Short-eared Owl were also seen. According to men at the deoline site, there have been few owls and jaegers around all summer, but last year they said there was a very large concentration of Short-eared Owls. They did not, however, say anything about breeding, but the concentration of owls was definitely during the summer - not a fall or winter phenomenon.

30 July

Pitt Point

None were seen alive on the tundra during these days. One adult ♂ was found at an eagle nest and 6 were trapped on the transects, indicating that the population has dropped drastically since Max was here. Old runways and winter nests were found every where - even out





F. Code  
1957

Lernaeus trimacronatus

7-30 July

Pitt Point.

in the middle of Larnier Lake where  
50% of ground is bare.

Although the vegetation has  
been pretty well clipped - especially  
apparently during the winter in the  
marshy areas where there are  
great drifts of dead cuttings - the  
general condition of the vegetation  
is far from being "mowed down"  
as it appears at Barrow after a  
"high," and off hand I would say  
on a unit basis there is as much  
vegetation at Pitt Point right now  
as there is at Barrow one year  
after the decline. There is perhaps  
slightly more high ground in propor-  
tion to marsh area at Pitt Point  
than at Barrow, but otherwise the  
two areas are similar.

It is my feeling that the  
decline in Lernaeus between the end  
of June and the middle of July was  
due primarily to the predation by the  
heavy concentration of orcs and  
fulmars in the area - and especially  
because of the unusual orc density - and  
not because of vegetation exhaustion.





T. Code  
1957

## Lemmus - behavior notes

15 June, Barrow, Alaska

1730 - Observed large adult ♂ asleep on top of grass. He woke up and rolled over on his back and began grooming his genital area with tongue and teeth. While doing so, he ejected a fecal pellet, which he took immediately from his anus in his teeth and chewed it up and apparently ate it. He consumed 4 pellets in this fashion in quick succession, actually removing them from his anus with his teeth. Then he resumed the grooming of his venter. In a few seconds, he everted his penis and licked the head of it with his tongue and appeared to work it over lightly with his teeth. This may have been some kind of auto-erotic behavior but as it was preceded and succeeded by grooming, it probably should be classed with that activity. He continued for some time grooming his whole body, gradually working cephalad. The whole activity lasted about 5 minutes.





Lemmings - behavior notes

15 June, Barrow, Alaska

We now have 6 live animals in the lab. I have 3 subadults, 1 ♂ 2 ♀♀, together in a terrarium 12 x 24 x 14 high with grass and rod. They have been together since 9 June. After a few hours of initial fussing at each other - no more fights occurred - they have settled down and are living peacefully together. Several times I have seen two of them sparring with each other standing upon hawkes and boxing with fore legs, but this appears to be play more than serious fighting. There is a sharp alarm squeak they use during initial encounters or when suddenly approached by one another, and there is a softer kind of chitter - almost conversational in sound - which I think is used only by the ♂ in his approaches to the ♀♀. So far I have not observed copulation, but yesterday, one of the ♀♀ had a little blood around her vagina.

Yesterday, I put an adult ♀ and ♂ together in the same size terrarium - also with grass and rod. The ♂ has tried several times to approach ♀, but she gives the sharp squeak and fights him off with her fore feet. I have not seen teeth





Code  
1957

## Lemmings - behavior notes

15 June - cont

used. ♂ has tried chittering to her, but with no effect. He weighed 91 gms yesterday - she 68+, but she appears to be dominant. ♂ usually always runs or retreats when ♀ squeaks. She may be pregnant. A few more days should give the answer. ♂ is quite tame and will crawl onto a hand placed in cage and out onto arm and shoulder. ♀ is shy and runs into hole where touched or is picked up. ♂ can jump up and catch hold of rim of terrarium if he is on rod 6 inches below rim. Otherwise he does not try.

Two other small subadult ♂♂ are together in another terrarium. They have a wheel, which the larger ones used all the time. They have gears but no rod. They have been together since yesterday, and still have not settled down - they squeak and jump back at each close encounter.

I have been feeding a lot of diet wastes - leaves and roots - just beginning to green. They like it very much. They also eat lettuce, <sup>canned</sup> corn, canned carrot, apple, tomato, and oat meal.





Code  
1958

Lemmus trimucronatus

20 June Barrow and environs

No one in our party this year has yet seen a live lemming or any fresh lemming sign. A few have been brought in from the village. Yet late fall and winter cuttings are locally evident everywhere and become extensive in some of the marshy areas. The amount of cutting clearly indicates that there was a moderate sized population here last fall - larger than could have been expected from the late catches on our trap lines. Either the major reproductive effort occurred after we left last year, or else the animals moved in from elsewhere. At any rate, there are two enigmas represented by the present ground conditions: (1) how did so many animals get into the Barrow area after August, last year, and (2) what killed them all off? In the habitats that were occupied - marshes, lake edges, troughs of polygonal ground - the vegetation over wide areas was completely cut down, but the higher ground has been little touched - as is the case in a high year. It does not seem likely that the animals ran out of food.

There was a remarkable thaw-freeze

the trap lines  
not give a  
good index of  
numbers





T. Cade  
1958

Lemmus trimucronatus

8-20 June Barrow

sequence at Barrow, as well as at Wainwright, about the middle of October. This was accompanied by heavy rains for a period of about 1 week, according to Pete Sgoralik, and this unusual weather may have been responsible for a major kill among the lemmings. We do not yet know over what area this October thaw and rain occurred - we hope to get weather records from all the devolice sites - but it may have been quite extensive and may have equalized lemming populations at a low density virtually all over the Arctic Slope.

On the flight with Maher and Shanks on 18 June, heavily grazed vegetation with lemming runways in the cuttings was common all the way along the coast from Scott Point in to Barrow. Maher found evidence of lemmings along the Iduve in some numbers during the winter, but not as much as right around Barrow.

Another interesting point is that a large percent of the winter nests have the remains of dead lemmings in them. In some cases there are whole carcasses, but





Code  
1958

Lemmus trimucronatus

18-20 June Barrow

in most cases, the remains have been torn apart and consist of scraps of skin and fur, feet, tails, and heads. The brains are frequently eaten out in the back. At some of these nests weasel scats have been found. It seems certain that there was a considerable weasel population at Barrow during the winter. It is my guess, however, that the weasels were living at that time largely on lemmings that had already been killed in their nests by the snow-furze condition referred to above. In some of the nests with remains it appears that the weasel used the skin and fur to line the inside of the nest for its own denning purposes. The fact that some unladen lemmings are also found in the nests suggests that the weasels were not the killing factor. We are now sampling a large number of nests to get statistical data on the percentage which contain dead lemmings.

21 June

- one of Ganthorn's boys found a subadult ♂ dead along the edge of a lake near T9-10. Dead a long time.





J. Cade  
1958

## Lemmus trimucronatus

24 June Barrow - summary of findings about  
winter nests, dead animals, and weasel  
utilization:

(1) area of ca 300 sq. yds near T 9 & 10

Nests without remains or dead = 41

Nests with chewed up remains = 28, of  
which 1 held 7 animals, 4 held 2, and 1  
held 3 animals (judged by crania)

Nests with weasel scat nearby = 12

Nests with whole animals = 4, 2 SA ♂,  
2 SA ♀

(2) Arcticophile area back of ABL = 200 sq yds

Nests without remains or dead = 23

Nests with chewed up remains = 6, of  
which one held 2 animals.

(3) Area of 400 sq yard between beach  
ridge and airstrip

Nests without remains or dead = 20

Nests with chewed up remains = 6, of  
which 2 contained 2 animals

Nests with weasel scats nearby = 5

(4) area of 200 sq. yds in center of Central Marsh

Nests without remains or dead = 10

Nests with chewed up remains = 0

Nests with whole dead = 2, both SA ♀

(5) South end of Central Marsh, 200 sq yds.

Nests without remains or dead = 25

Nests with chewed up remains = 11





T. Cade  
1958

Lemmus trimucronatus

24 June - nest data cont

Nests with weasel scats nearby = 10

Nests with whole dead = 1, ♀ SA

(6) intermediate ground between marsh  
and ridge south of Central Marsh - 300 sq.  
yds

Nests without remains or dead = 10

Nests with chewed up remains = 7, of  
which one contained 2 animals

Nests with weasel scats nearby = 2

Nests with whole dead = 3, 2 ♀ SA, 1 ♂ SA

(7) another intermediate area S of Central  
Marsh, 100 sq. yds of Pupperia

Nests without remains or dead = 19

Nests with chewed up remains = 6

Nests with weasel scats nearby = 2

Total nests = 223

Number with chewed remains = 64

Number with whole dead = 10

Note: all the intact dead animals were  
found in the center of the nest in a  
half curled posture, head tucked down  
under fore legs. All were sitting upright  
and all had blood stains around the  
nose and mouth, as though internal  
bleeding had occurred. All were in  
advanced stages of decay.





T. Cade  
1958

Lemmus trimucronatus

24 June

- nest data cont.

In the case of the nests where chewed up remains were found, usually some trace of hair or skin or an occasional jaw, cranium or leg was noticeable from the outside. When the nests were opened up, the nest chamber was usually lined with a matting of hair and skin, as though the weasel had used the remains to insulate the lemming nest for its own use. In a few instances it appeared that the weasel had established itself in a particular nest for some time, dragging additional lemmings to that nest from adjacent ground, as in the case of the nest with seven crania. The crania were typically chewed out in the back in characteristic mustelid fashion. Large lemming nests more frequently contained remains or dead lemmings than did the small cup-shaped nests. Weasel scats were located from 6 to 24 inches away from the nests and were never found inside the nests. Weasel scats were never found around a nest which did not contain the chewed remains of lemmings. Some of the lemming remains





T. Code  
1958

Lemmus trimucronatus

14 June

- nest data cont -

were frozen into the cover of ice which formed at the bottom of a used nest. Whole dead animals were never found, frozen into the ice - a fact suggesting that they died before there was a chance for the formation of ice under the nest. Remains of dead lemmings have not been found scattered over the tundra <sup>from</sup> ~~across~~ outside the ~~the~~ winter nests.

One whole dead one was found at the edge of a lake. The facts suggest to me that the lemmings froze to death in their nests, and subsequently a sizable weasel population moved into the area and fed on frozen lemmings through the winter, using the lemming nests as temporary shelter while food was available there and then moving on to the next cache. In other words, it seems highly doubtful that the weasels were responsible for much of the mortality occurring in the lemming population.

An interesting feature about the distribution of the heavily cut areas around Barrow is the frequency with which one encounters extensive cutting along stream ways and along





T. Cade  
1968

Lemmus trimucronatus

24 June

- cont

the edges of marshes or flats that flank along banks. The drainages running into Central Marsh show this heavily in some instances. Most of the higher ground, especially the ridges, have hardly been touched. River and stream courses and the bank-marsh type interface are natural travel ways that one might expect moving lemmings to be channelized through. It is also interesting to note that the Eskimo observations of lemmings along the Inuvik refer specifically to the river valley and not to the tundra adjacent thereto.

June

Barrow to Meade River - very little lemming sign was seen west of Barrow. In the vicinity of Skull Cliff we flew at 100 ft for 5 minutes and during that time I saw only two local areas of heavily grazed ground - otherwise the vegetation on both the tundra and in marshes and around the edges of lakes was standing upright in good density. From Skull Cliff to the Coal Mine we flew at 700 ft. From that altitude I saw no areas of tundra cutting such as





T. Cade  
1958

Lemmus trimucronatus

5-26 June Coal Mine - Meade River  
is evident around Barrow from the air.

There is very little fresh microtine sign around the area covered by our transects. Of 8 winter nests which I have found, 3 contained the chewed up remains of lemmings. One held 3 skulls. These nests were all located either in the troughs of polygonal gravel or along the banks of streams at the interface between the willow zone and the zone of grass and sedge nearest to the water. Some of the nests may have been 2 years old.

In an area ca 1/2 mi S of camp I found a low mound on a gentle slope running down into muskeg ground. The mound was about 3 sq. yards in area and was vegetated predominantly with Poa. Two winter nests were in this area, and all the growth from last year had been cut. There were fresh looking runways and 2 fresh-looking holes. The surrounding ground on the slope was a kind of "barrens" with lichens and Coriaria as dominants - with a scattering of sedges and forbs.

27 June Coal Mine - Meade River - an area of extensive lemming cutting (winter) with a good number





T. Code  
1958

Lemmus trimucronatus

7 June

count  
of nests was found today across the river  
just above (away from the river) the  
willow zone in which T6 is located.  
This ground is characterized by scattered  
low willows 6" to 12" high with a  
thick stand of grass, Carex and Eriophorum  
growing around and under the willows. There  
is little tundra formation and few poly-  
gons. The ground is moderately well drained.  
Very few forbs present and very few shrubs  
or heaths. Ground slopes gently toward  
river and ~~area~~ ranges from 25 to 100  
yds wide between the higher willow  
zone and the flatter low Eriophorum polygon  
and lake area to the uphill side of it.

In this area all growing sedges and grasses  
show broken-tipped cuttings and cut blades  
are thick all over the ground. Old runways  
are numerous, also winter nests are  
fairly common. I looked over about  
200 to 300 sq. yards this evening - saw  
not one freshly cut blade. The following  
winter nests were found: 15 nests  
without rhinaria, 4 with chewed up rhinaria,  
and 1 nest with chewed up Microtus rhinaria.  
(Brock found a nest in the willow zone  
with rhinaria of 3 Microtus). No seats of





T. Code  
1958

Lemmus trimucronatus

27 June - cont. -

any predator have been found. Will look over this area again tomorrow. It is the heaviest used and most extensively used area so far found at this station. Except for the fact that summer growth is more advanced, the degree of cutting is quite comparable to the most heavily cut areas around Barrow. Again it is worth noting that this area follows along a river. The zone appears to be extensive along the right limit of the river across from the Coal Mine - perhaps 2-3 miles long. There is no habitat at Barrow exactly comparable to this ground because of the ~~heavy~~ admixture of dwarf willows with the grasses and ridges. It is closest perhaps to the intermediate areas above the low marshes and below the ridges.

June - This evening I found a nest on the side of a man-made dike of peat adjacent to sedge-grass marsh which had an adult dead lemming inside. The carcass was quite maggoty but still showed the semi-cowled posture and blood-stained nose typical of the dead animals found at Barrow.

29 June Examined the ground across the river from the village again today. The heavily cut





Code  
1958

Lemmus trimucronatus

9 June cont-

area covers about 10 acres, but there are locally heavy-used areas all along that side of the river above the willow zone on what might be called the first terrace. Even higher up in the high, central polygon tussock heath tundra there are local areas that show much cutting including heavy cutting at the base and edges of Ericophorum tussocks.

30 June - Examined ground around T 304 today and on down river from there. Locally heavy sign of winter activity in all low areas - very little on ridges or high banks of river. Twenty-eight winter nests from this area break down as follows: 25 were empty, 2 had chewed-up remains, one of which held remains of 2 animals, and one nest had a whole dead lemming inside. This animal was maggoty, a subadult in semi-cowled posture and blood-stained nose.

A skin with jaws and part of appendicular skeleton was found hanging on a willow branch ca 2 ft off the ground. There was suggestion that it might have been





T. Code  
1958

Lemmus trimucronatus

30 June

cont

left there by a shrike. Also possibly deposited there as drift by high water from the river. Willow was on lower side of the bank in an area that had been inundated earlier, but skin was very firmly attached to willow branch - not spiked but wedged into fork of branch.

July

Mead River to Barrow - on direct line flight, the sign of heavy winter activity of lemmings became evident about 10 minutes away from Barrow (ca. 15 mi.) and became even more conspicuous 5 minutes before landing. Again the largest amount of cutting was noted along the edges of meadows, lake basins, and along the banks of streams.

-6 July

Barrow, Alaska

The marshy and intermediate ground throughout the Voth area shows about the same degree of winter cutting as do the areas previously described around Central Marsh. Winter nests with the remains of lemmings also encountered.

Barrow to South Barrow Three.

On this transect winter cutting and winter nests were observed locally all along the way. However,

7 July





T. Code  
1958

# Lemmus trimucronatus

7 July

-cont-

the heavy winter cutting typical of the Barrow previous pebers out about 3 miles south of the gas well. From there on cuttings and nests are quite local in individual marshes - mostly the intermediate ones in terms of wetness - the Carex aquatilis and Depontia stands.

At S. Bar-3 I examined 19 winter nests, one of which had some tufts of lemming hair in it. No other remains were found.

23 July

Colville River - at Double Knife black Bluff - an adult lemming was seen running along the base of the bluff and into some low alder-willow brush.

A number of fresh carcasses were found at vaneq-logged hawk nests (see under the account of Buteo lagopus for 22-25 July).

September

Anat - Cayley, the dog, caught a subadult on the up land barochy heath tundra just below T3. I took it away from her, uninjured and put it in my coat pocket, but later it escaped as I was walking back to camp.





Code  
1958

## Lemmus trimucronatus

September Bavaro -  $\frac{1}{4}$  mi S of gas well  
While the LVT was being gotten out of the ditch, I spent some 45 minutes looking over the ground for fresh lemming signs. I walked 1050 paces slowly examining the ground closely as I marked each pace. About  $\frac{3}{4}$  of this distance was walked in high center patterned ground, much riddled with old excavations, and the other  $\frac{1}{4}$  in wet meadow of Cantlan's terminology, with some winter nests scattered about. At each pace some old sign was evident - lemmings, runway or droppings but I did not find a single fresh dropping or a recently used runway or burrow.

In talking with Bob Franske about conditions last winter, I learned that he saw lots of sign of lemming activity around the Rec Station after the heavy-fledge sequence in October. This is in the area where I found so many winter nests and so much related sign. He did say, however, that in late December or early January there was one period





Cable  
1958

## Lemmus trimucronatus

3 Sept

-cont-

of sudden sharp decline in temperature - into the  $-40^{\circ}\text{F}$  region. This coupled with a very thin snow cover may have played the factor that caused the high mortality that was evident from spring conditions.

September

Barrow-Inuvik R - Peled Boy  
Three ground checks were made for lemming sign.

#1. At a point near the 1956 duck camp site on the Inuvik R - actually at the sand dunes down river from the camp site (see 1956 notes). In 2070 paces, covering a lake margin, river bank and large center marsh with dwarf shrub. (*Saxifraga nivalis*) on the rims of the polygons, I saw no fresh sign of lemming (looked for pellets, fresh runways & fresh burrows). Old sign was everywhere - runways, holes, dried cuttings rifled up in piles, winter nests - some of which had chewed-up remains, and pellets.

#2 - point on the Inuvik ca 30 mi.





Cade  
1958

Lemmus thimucronatus

Sept - cont -

above site #1 1360 paces in high center, tussock-dwarf shrub heath complex gave no fresh sign. Again old sign was abundant - some winter nests were found in the troughs of the high center ground.

#3. - at a lake margin about 5 miles in land from the SW corner of Pearl Bay. 1175 paces in high center tussock-dwarf shrub-heath habitat gave up fresh sign. Old sign was less abundant here than at the previous two stations.





T. Code  
1959

Lemmus trimucronatus

15 May

Barrow, Alaska

Several people have mentioned seeing two or three lemmings dead in camp but other than that there are no reports. The Eskimos have seen none.

Three scrapes were made with a D-8 cat in Central Marsh to see whether or not lemmings could be turned up.

One scrape of 212 paces gave no lemmings and no sign, another of 275 paces gave same results, a third of 300 paces gave 3 locations of sign - one juvenile nest with a burrow in the snow, one location with droppings on the snow and remains of a nest, and one area with cuttings under the snow.

16 May

Barrow to Inuvik - 75 miles by wheel gave no lemmings signs and no saw for sign - tracks, holes in snow, etc.





Cole  
1959

## Lemmus trimucronatus

Aug 5-15

Upper Colville between Etipuk and  
Solam nagavik. Throughout this  
area in the rolling hills adjacent to  
the river valley, wherever we  
looked there was abundant lem-  
ming and vole signs. In local  
areas of a few hundred square  
yards the cutting of tussocks was  
quite as extensive as that  
observed earlier along the Pitmegea  
River. The presence of short-eared  
owls, occasional marsh hawks,  
and long-tailed and parasitic jays  
correlates with the ground indications  
of substantial, but not really "high"  
numbers of rodents. Judging by the  
kills found in beech-legged  
hawk, gyrfalcon, and phalarope  
nests - the two species chiefly  
involved are L. trimucronatus and  
M. alcovorus. It may be significant  
that freshly killed lemmings have  
been found at the awils of both species  
of falcon. The phalarope, in particular,  
would not be likely to pick up lem-  
mings, unless they were especially  
common and conspicuous. Signs in the  
flood plain was not so noticeable.





Cade  
1959

Lemmus trimucronatus

20 June Middle Chukille - between Olanvagonik  
and Chuiat. Mouse sign became  
noticeably less conspicuous. Below  
the mouth of the Killik River - just  
as it did last year. Roughleg were  
not occupying as many cliffs as in  
1956 & 1957, but gyrfalcons along  
this stretch were also taking quite  
a few short-tailed owls - but the  
latter may have been gotten from  
distant flocks.

Aug. 5 Aug

Lower Chukille - below Chuiat - no-  
where along the lower Chukille or in  
the delta beyond mouth ~~of the~~ of  
Killik River was sign of lemmings  
noticeable. The rough leg nests on  
the lower river had very few  
microtine remains - mostly lewils  
and gravel particles - and productivity  
seemed to be low - many of the  
nests contained only one or two young.





Cade  
1956

Microtus micrus

17 June Uniat, Alaska

On 15 June noted some stacks of dry (last year's) willow leaves at the bases of 2 ft willows on a heath-shrub area immediately west of ARL hut. The ground in this area has very conspicuous and numerous runways. Set 12 traps by 4 of these leaf stacks. To date have netted 4 animals - all M. micrus. The soil underneath these stacks is packed with mouse droppings. Occasional droppings are found everywhere along the runways, but there are definite, conspicuous spots along the runways where pellets accumulate in an area of 4-6 sq. inches. There may be several hundred pellets in each pile - I have not counted any yet.

21 July

It is conspicuous after completing trapping on T9 (the above area) and T10 that this mouse is closely associated with stands of lupine, which it apparently eats, as I have found cut leaves in the mouths of trapped animals. Again and again the good trapping stations, where several animals are caught at one stake, or there lines are in patches of almost pure lupine. Lupines are very abundant and fresh here this year. Do not remember it as so conspicuous in 1952. I haven't also remarked about its growth here.

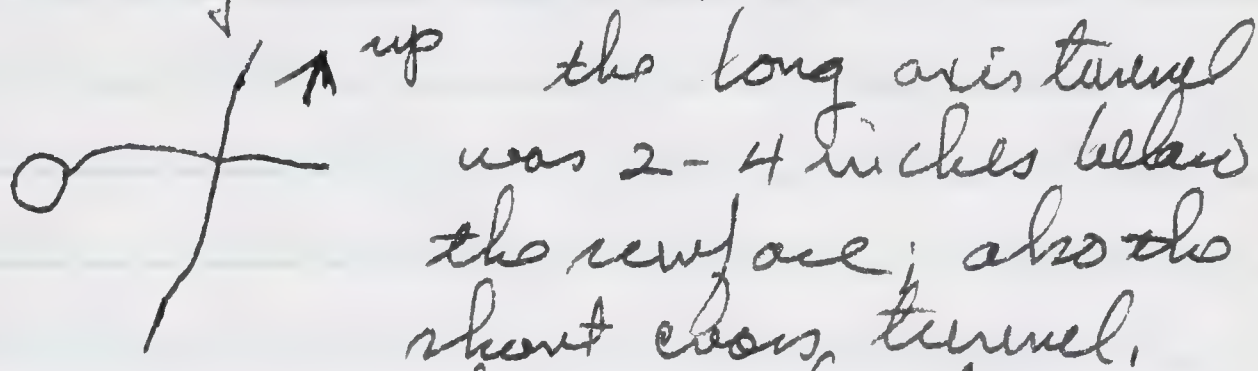




Code  
1957

Microtus micurus

1 July, Unist- today on the slope by Red Hill,  
I dug out a burrow system. It was  
in the shape of a cross with the long  
axis running down hill thus:



The long axis tunnel  
was 2-4 inches below  
the surface; also the  
short cross tunnel.

The nest chamber  
was ca 10 inches deep and contained a  
nest of fine grasses - almost clean with a  
few ptarmigan feathers. There was also  
the dried skin and parts of skeleton of a  
M. micurus, adult, in the nest. The long  
axis was ca 2 1/2 feet with the entrances  
at both ends. The short side branch was  
ca 10 inches and the tunnel to the nest  
chamber was about a foot. The nest cham-  
ber itself was roughly globular and about  
6 inches in diameter. It was completely  
filled up by the nesting material. The  
tunnel was in what Tedlow calls the  
"Arctic Breach rail."





Microtus minor

August - Summary of occurrence at Okjilak Lake - also other microtines.

M. minor is the dominant microtine at this locality. It apparently has recently reached high densities on the fans and steep slopes of the sides of the valley. Microtine sign - runways and holes, presumably of M. minor - are conspicuous all the way to 6,000 feet. M. minor appears to be absent from the intermediate zone from the base of the fans to the river terrace. This ground is typically damp to wet with mostly a dwarf shrub - heath - lichens - Empetrum complex dissected by numerous drainages of willows, reeds & grasses. In this area - especially along the lush drainages - Lemmus and M. oeconomus occur sparingly. On the flood plain and on the old river terrace - especially along the banks of old stream meanders - M. minor again reaches a high density but perhaps not so high as on the slopes, and the flood plain habitats may serve mainly as spill-over areas for surplus animals forced out of the slope - fan terrain. In places





Code  
1958

## Microtus micurus

5 August Obfialak Lake  
the two habitats (alluvial fan and floodplain) are essentially in contact. With M. micurus on the slopes and fans occurs a sparse population of Clithromomys.

Moraine type ground has not been worked in this area but it is to be expected that Clithromomys occurs on this ground, as they did last year at the Jugo.

This area (Obfialak) could profitably be worked on an intensive basis for a couple of seasons to discover the effects or correlates of the following variables on microtine populations: (1) degree of slope (2) exposure of slope (3) substrate of alluvial fans (granite, quartzite and limestone are locally available), (4) altitude - a range from 2000 to 6000 feet could be covered (5) vegetative cover (6) changes in vegetation and topography along the gradient of the river valley - up stream to down stream. The geological, vegetative and soils work being done here would provide excellent background material for such a study.





T. Coele  
1959

Microtus minor

31 May

Peters-Schroeder - ♀ freshly killed found hung in willow by shrubs on west side opposite lake. In areas on slopes and fans where ground is exposed there is very little evidence of fresh vole activity. However the hard rocky ground does not show more sign readily. Hobbie<sup>ie</sup> has observed no microtine activity either.

2 June

Peters-Schroeder L - one seen running among some rocks on an alluvial fan in Whistler Creek and an old pile of willow leaves was found.

June

Peters-Schroeder L - Ad ♂ found hung up by shrubs on W. side of Peters.

June

Peters-Schroeder L - on Caprihorn Creek - one was seen to run into a hole under a rock.

June

Peters-Schroeder L - one seen running along a bank in floodplain of Caprihorn.

5 June

Peters-Schroeder L - appears to be the commonest microtine present in the area - numbers seem substantial but not as high as on the Okpilak last year in late summer.





Microtus oeconomus

11 June

Uniat, Alaska

As I was walking up the gravel road from the runway to the huts, a microtus ran out from under a building and went right between my feet. I kicked it, and was able to secure it for a specimen. This was about 0230. It was snowing.





Code  
1957

Microtus oeconomus

1 July - Unnat

I have been giving different foods to my captures to see whether or not they have some strong preferences that might be usable as a bait for trapping. They do not eat canned corn as well as lemmings do; they eat lettuce, of course, and oatmeal to some extent. They seem to like canned carrots pretty well. Walnut meats are nibbled at but not preferred. The one thing so far, that they seem to take in preference to everything else is fresh apple - two adults ate a whole apple in a little more than 24 hours.

At Barrow it was quite evident that lemmings also like apple quite well. I will try baiting some live traps with apple to see if the catch is increased. I have been using chopped walnut meats, which do not seem to attract them very much.

3 July

Unnat - of natural foods, lupines seem to be eaten with greatest relish - especially the blossoms. The same is true for some greened quonels I have.





T. Cade  
1958

Microtus oeconomus

19 August - Summary of occurrence in the Okpilak area  
I am more and more convinced that this species is mainly a dweller in lush edge-groves - willow complexes along the edge of small streams, slope drainages and around the margin of lakes. All the transect data at this station support this point of view. In addition, I found heavy microtine activity (sign) along the lush drains which come down the wall of the valley between the alluvial fans. T2 cuts across such drains, but a transect paralleling one of the drains should have been run. At this season fresh diggings are the most conspicuous sign (also true of M. micurus). These diggings are in the sides of drainage ditches, banks, at the base of terraces or in peat mounds, and they are quite conspicuous because the newly excavated peat and dirt is spread out as a kind of <sup>fan-like</sup> apron in front of the hole. Such material is often worked right into the runway system. In one such area I set 8 traps in a space of 50 square feet. In two days, 5 Mo were taken in these traps. Along this drain a transect probably would have yielded between 20 & 30 Mo, most <sup>juveniles &</sup> subadults.



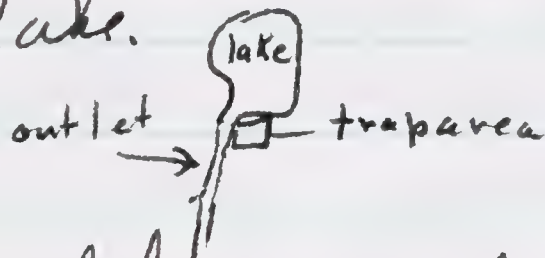


T. Code  
1958

Microtus oeconomus

22 August - 1800 - Jugo Lake

Set out 20 traps in an area of about 300 square feet - 20 x 60 ft. at the outlet end of the little lake on the moraine above Jugo Lake.



The vegetation is wet to damp sedge - grass dwarf willow along margin of lake and along stream outlet, bordered by an area of upland rocky dwarf shrub - heath with a bank 3-4 ft high between the two habitat types. Very frequent diggings and fresh runways in this area.

2 August 1000 - Caught 4 M. oeconomus, specimen numbers 274, 275, 276, 277,

1 August 1000 - caught one mouse, No 278.

5 August 1000 - no catch - traps removed.

Total catch of 20 traps for 3 "nights" equals 5 for 300 square feet. This was one of the places used looking for focal areas that I have seen in the Jugo area.





Cade  
1958

Microtus oeconomus

5 August

Jugo Lake - summary of occurrence - also other microtines compared.

Again at this station M. oeconomus appears to occur only in highly localized population units widely dispersed from one another. The habitat is wet sedge-grass - willow swales on hillside moorland or similar habitat along hillside drainage swep or in wet meadows of the river terraces, but in all these areas - including the large terrace plateaus above and below Jugo Lake, the areas of frequent fresh sign are limited - usually no more than 400 - 1000 square feet in area. Large continuous densities do not seem to be present. The sector of T2 from stake 4.0 to 7.2 represents one such local "hot" area. So also does the sector of T3 from stake 2.8 to 6.8. (See transect data). The dry rock stripe - dwarf shrub - heath habitat was again this year virtually devoid of microtine rodents. The ground along T4, I am now convinced, is situated too far out at the margin of a drainage swale of sedge & grasses. It is too close to the upland heath type vegetation. Had it been placed 20 yds closer to the drainage

as well as the area trapped  
by the little lake.  
←





T. Code  
1958

Microtus oeconomus

5 August cont.

way where the sedges and grasses are more lush and continuous it probably would have yielded a catch similar to T2 & T3.

Lemmus appears to occupy the same ground exactly, but in limited numbers. M. musinus has not been taken at this station. Suitable alluvial low type habitat does not occur in this valley until one goes about 3-4 miles upstream. There is flood plain habitat that looks suitable - ground such as that along T1 - but there is no sign of reproductive activity in the flood plain until one reaches a point about 2 miles above Jugo Lake, where I saw some diggings and fresh trails along a bank between the flood plain and the river terrace. This sign was probably made by M. musinus. Medicago (legume) is as abundant on the flood plain areas here as on the Okpilak, so there should be sufficient food for populations of M. musinus, at the Jugo Lake sector of the valley. Willow cover is not so good as at Okpilak.

No sign of Sicostomys this year on any ground.





Code  
1958

Microtus oeconomus

6 August Jogo Lake

Set 10 traps in the small sedge-grass marsh on the river terrace at the end of T2 - between the flood plain of the river and the marsh on the east side of Jogo Lake. In this area (trapping area only) of 200 square feet fresh diggings and runways are common. Many of the diggings are holes which were started and extend 2-3 inches into the ground and then apparently abandoned. This is frequently the case in such areas. Traps set out at 1800.

August Jogo Lake - 1000 - The 10 traps yielded 2 juvenile or SA *M. oeconomus* - both females, one of which has a vaginal plug.





Code  
1957

## *Alopex lagopus*

10 June - Between Beaufort and ~~Bay~~ Point Bar

One seen sitting out on the tundra  
inland 1-2 miles from coast at 2002.

27 July Pitt Point

At 1950 a fox was seen traveling  
over the tundra between the two roads  
and in the general area of Owl nest #6.  
It was being harassed by a pair of  
jaegers. As it ran along, the jaegers  
flew in behind the fox and appeared  
actually to strike the fox in the rump  
with beaks. This caused the fox to  
jump up and twist around in the  
air. Then another jaeger would  
attack in the rear from the other  
direction. At least two different  
pairs of jaegers entered into this  
attack as the fox progressed. It  
was constantly harassed as long  
as it remained in my sight, some  
15 min., and had no chance to do  
anything but run and dodge the  
jaegers.

29 July

At the "break" in the dike of the  
drained lake south of the site, some  
fresh fox dens were found and  
also a great accumulation of winter  
rats, caribou hair & bones etc.





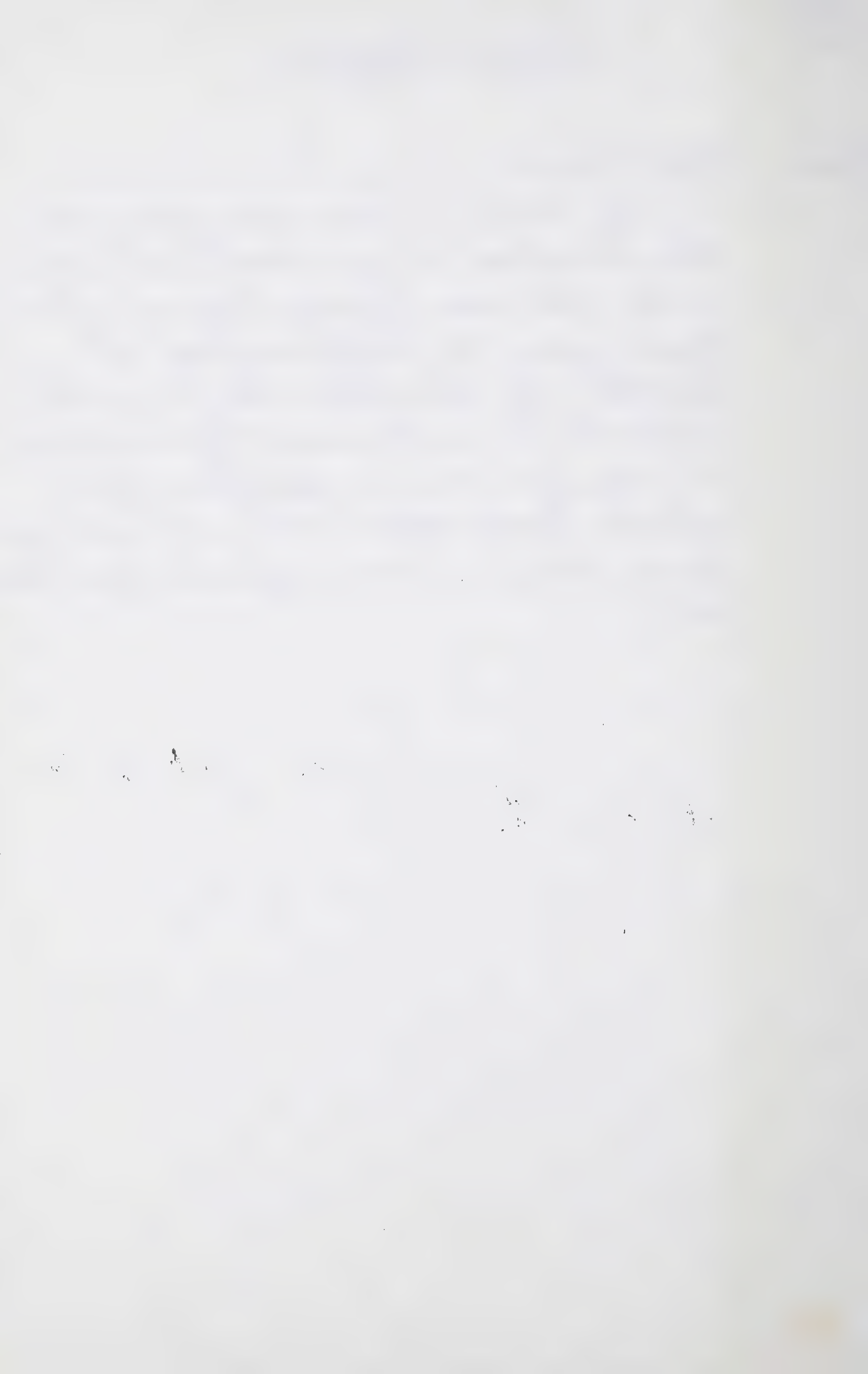
T. Code  
1957

Alopex lagopus

29 July

Pitt Point

At 1105 a fox was seen on the tundra  $\frac{1}{4}$  mi. east of the den area. It was lying down when first seen. As I approached it trotted off toward the drained lake. As it went over the horizon it was joined by another fox, which had apparently also been lying down some yards farther on.





F. Cade  
1958

Alopex lagopus

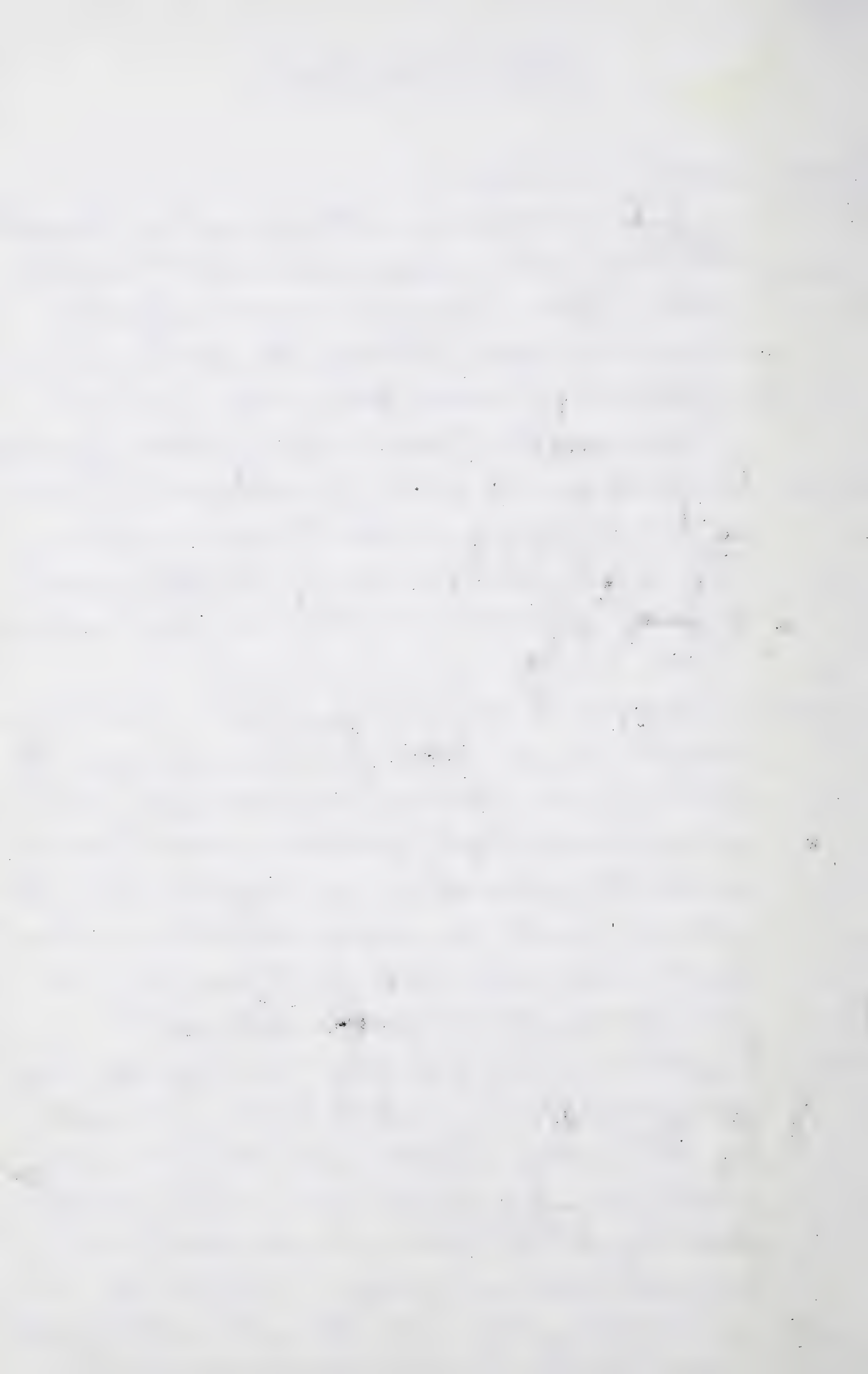
18 June east of Barrow

One was seen sitting out on tussock tundra just a few miles west of Teshek-puk Lake. Very few were reported along the coast during the winter. None taken at Barrow and very few at Wainwright. Maho has precise figures.

20 June Barrow - at 1905 Brock and I saw a fox digging on the tundra near T9. When it saw us, it stopped and moved off - not too fast - westward along Fresh Lake.

22 June Barrow - a phalarope which had been caught in a trap on T6 appeared to have been eaten by a fox. No scats were found, but feathers were strewn over the ground in an area of two-three square yards - no bony materials or other parts were left - just feathers. This is the typical appearance of a fox kill.

3 June Barrow - at 1306 I saw one hopping along in south part of Central Marsh. He ran a little way, stopped and rolled on his back for a few seconds, ran a little farther and then rolled again. He was about half way into summer pelage. I stopped at one of the spots where he had been rolling and found tufts of white hair over about a





Cade  
1958

Alopi logopus

23 June - cont.

a square yard of ground. Photo taken.

At 1930 B rock and I saw a different individual between T9010 & T122.

He was hunting in a polygon area - quaterning back and forth, stopping now and again to investigate something. He covered a lot of ground systematically and quickly. For a while we watched in the vessel from about 100 yds.

We saw him stop and eat something. I lined him up with a post on the horizon and chose straight for the spot. He finished eating and moved off unconcerned before we arrived, but a little searching in the area revealed a freshly broken and eaten shorebird egg, still lying in the scrape. A pair of excited turnstones were flying about us, and since the nest was on a site typical of that used by turnstones, we are sure it was their nest which the fox molested. This fox was nearly all white yet, with just bits of fur shedding on his right haunch.





T. Cade  
1958

Canis lupus

8 July Uniat, Alaska

Harold Griffin informed me today that he and Carl Boese shot 43 wolves from a plane, working out of Uniat, from 15 February to 15 April.

The area covered was mainly the Colville valley from Uniat upstream, along the Kilik and across the base of the mountains to the Igroavik River and also out onto the coastal plain fronting the northern foothills. About 80% of the animals came from the general locality of Kuwupuk Lakes, where caribou were concentrated. In all 300 wolves were taken by 18 planes operating out of Uniat or Anaktuvuk during this period. The total area covered by these operations extended east and west from Liberator Lake to Schwader Lake and north from the Brooks Range to the Fish Camp in the Meade River country. About 200 of these animals were taken in the area bounded by the Colville River, ~~Kilik~~ Etivluk River, and the Anaktuvuk River, again the area where most of the Caribou were concentrated. In all this activity no one has yet seen evidence of a





Code  
1958

# Canis lupus

July - cont -

moose-hill.

More than half the animals taken by Griffin were yearling wolves. Fourteen of the 43 were black.

Around the first of April on the upper Chandler just above the forks, Griffin made the following observation while he was on the ground. A herd of about 30 caribou were traversing along a flat ridge in single file. Suddenly a wolf emerged from some brush about 10 feet from the lead animal, a big cow, and appeared to grab the caribou by her snout. Then the wolf seemed to spring backward between the forelegs of the caribou, biting the head and neck of the caribou down and between her forelegs. In the next instant the caribou was flipped over on its back. It lay still after that. ~~When the carcass was examined~~ Then another wolf appeared and joined the first animal. They began feeding immediately. When the carcass was examined about 30 minutes later, the wolves were gone - probably having been scared off by the plane. The carcass had been opened up on one side of the rib cage in the area of the

This observation was made  
half a mile away with 8x50 binoculars





T. Code  
1958

Canis lupus

8 July - cont-

liver, and part of the lungs had been eaten. Griffin says that this is the typical method of entry, and that the wolves usually eat only parts of the viscera - especially the lungs & liver. The ~~whole~~ cut out of the rib cage is just large enough for entry of the head. The wolves do not return to their kills, but move on with the caribou. In the instance referred to above, there were conspicuous lacerations on the nose of the caribou but no other marks indicating that the animal had been attacked elsewhere. In falling it apparently ~~break~~ broke its neck. Of some hundred kills which Griffin has seen, there has never been any indication that the caribou was caught by hamstringing, as is commonly thought.

Typically, after the wolves leave the kill, wolverines move in first and eat the remains of the viscera so that all that is left in the body cavity is the contents of stomach, Caecum etc - in a pile by itself. Also, they seem partial to the head region, eating eyes, tongue and portions of the neck. The head is frequently detached and carried or dragged away from the carcass -

detached at  
articulation of  
atlas &  
condyles





T. Code  
1958

## Canis lupus

8 July - cont-

in some cases more than a quarter of mile. In one instance the head had definitely been carried in the mouth and not dropped. In no case has a skull been found broken open or chewed out.

After the wolves come the foxes and weasels - sometimes together but more often the weasels come last. The foxes eat the flesh and the weasels pick up the remnants. A wolf kill thus serves a whole complex of carnivorous animals and will usually remain on the ground about a week before it has been picked clean.

In hunting by plane the wolves are often chased long distances. Yearlings are easier to shoot than old wolves. The yearlings usually run a head of the plane and then slow off to one side when they are easily shot. Adults, however, jump a head, stop and rest, shake back under the plane, and keep up such an erratic course that it is difficult to get in a good shot.

In one case an adult male was chased from known points on the map. He ran continually without stopping for 30





Canis lupus

miles for about 1 hour. When finally shot, he was still running strong. When examined this animal's posterior was covered with urine and excreta, apparently voided during the run. This occurred near Fish Creek, and the wolf ran south toward the hills.

The wolves will usually keep running straight ahead of the plane, as long as it stays in a position behind him. But if the plane overtakes and passes the wolf, then it will no longer run a straight course. After that it begins zig-zagging, stopping for rests and then moving on as the plane approaches, suddenly doubling back, etc.

In the following sample of 14 animals the sex ratio was 2 ♀ to 1 male.

25 July

Columbia River - wolf tracks were seen at every station between Colmanagvik and Umiat - some quite fresh.





T. Code  
1956

## Vulpes

13 June Uniat, Alaska

A cross-fax was seen hopping along over the silted area below Uniat Mt. It moved on down the ridge, eastward, and as it approached the vicinity of rough leg roost, one of the birds stooped at it several times, and it disappeared in some brush.

29 July

- Adult ♂ <sup>red</sup> caught in trap at the Uniat dump.

Another adult <sup>red</sup> was seen at the dump in the evening.

17 August

One (cross-fax) was attracted to the quonset, apparently by the gyrfalcons. The fox tried to slip up on two that were on the ground, but they saw it, and flew up, screaming.

Larry H. then stooped by low over the fox's head. It was very curious about the whole affair and reluctant to leave even when I walked out towards it. I finally sent a shot over its head with .22, and it scampered off.





T. Cade  
1958

Vulpes fulva

2 July

Cohoille River - just above Colamnagovich  
While we were investigating the  
rueghley nest on the bluff on the right  
limit just above the Colamnagovich we  
heard a fox bark several times, or a  
gravel bar at the base of the bluff.  
As we were returning to the boat, we  
saw it running along a bar at the  
edge of a dense stand of willows brush.  
We were within 60 yds several  
times, and the fox did not appear  
frightened by us. Several times it  
stopped to look at us. It was a typical  
red with very shaggy coat.

4 July

Cohoille River - below mouth of Killik-

At 2210 we saw a fox sitting on  
a gravel bar at the edge of the river.  
It allowed us to boat right up by  
it without its showing any alarm - just  
sat looking at us. We got within 20  
yards, and the fox was collected with  
a shotgun. Another typical red in  
heavy molt - adult ♂. Skull and  
as per spec. saved.

3 Sept

Meads River (valley) - Mead saw a fox  
on the high bank of the river between  
ARL wanigan and the coalmine.





T. Cade  
1959

Vulpes fulva

4 June

Unmist - Den with whelps (chewed inside but not seen) is located on the slope immediately below the end of T10. The den consisted of a net-work of openings (4 all together) - enlarged from old ground squirrel diggings at the base of a weedy out crop on a steep brushy slope. Both adults seen - one is red and one is a cross. Both retreated silently when I approached.





Code  
1958

Lynx canadensis

March, 1958 - Colville River

While wolf hunting from a small plane, Harold Griffin saw one lynx in the moose-yawling area across the river from Uniat. Another individual was seen on the Colville Bar, near the mouth of Killek River.





T. Cade  
1958

Gulo luscus

3 August Okpilak River

On the farm on which the shuck's nest was found by Sable and Cantlon - ca 1 1/2 miles above Contact Creek, an adult weaseline was seen loping along up the creek toward the high mountains. We were about 300 yds away, and the animal never did see us. As he ran along, he flushed up a ptarmigan which flew away down the slope. No other weaseline has been seen by any of the parties in this area this summer.





T. Code  
1459

Gulo luscus

12 June Petus-Schovel - one was seen  
loping along on the ice next to  
shore on the west side of Petus. It  
ran up onto the lower part of the gun  
I was on, stopped by a large rock,  
scratched briefly at the base, squatted  
and either defecated or urinated or  
both and then traveled on south  
along the lake and out of sight.





Code  
1958

Lutra canadensis

about first of March, 1958 - Colville River, <sup>above</sup> ~~below~~  
Uniat

During the wolf hunting season, Harold Griffin and Carl Boise saw ~~one other~~ ~~two others~~ sliding on snow banks along the river. When first seen the animal was sliding down a gentle slope and went into an open lead in the river. They banked the plane and turned in time to see the otter climb back up on the bank. When it saw the plane, it jumped back into the river. The locality was just below the coal seam across the river from Uniat.

Lutra canadensis  
is now  
Lontra canadensis  
per Wilson +  
Mader 2nd Ed.





T. Cade  
1958

Mustela erminea

17 August Okpi lak Lake - A subadult individual was seen on an outcrop of bedrock quartzite at the east end of the lake. My eyas falcons were perched in the area, and apparently their presence and screaming aroused his curiosity because he kept running in and out of holes under the rocks on which they were sitting, looking at them - approaching within 2-3 feet and then quickly ~~moving~~ away. It came also within 2-3 feet of Bill Malcom and me. I placed a dead bird at the entrance of a hole - holding onto it with one hand. He came up almost at once and took the bird. Then I put another down intending to try to catch him in my other gloved hand. He came up to take the bird, I made a grab - had my hand on him momentarily but he squirmed loose. He stayed under the rocks then fussing at us. Presently we heard him chewing on the first bird.

22 August Jago Lake - A weasel has come in and occupied the ground squirrel burrows under and around the family way. Seen off and on all day long.

25 August Jago Lake - finally shot the weasel today. He





T. Cade  
1958

Mustela erminea

5 August - cont -

has been raising hell with specimens,  
ground squirrels, and stonejacks etc  
under the Jamesway. Specimen # 287.  
Bill Malcom took the pelt. It was a  
completely prime summer pelt.





T. Code  
1958

Mustela vison

24 June Barrow, Alaska

While Pete Sovalik, Brock and I were locating plots for Schelly near T 9e/0, Pete saw a weasel run into a hole in some peat clumps which had been dug up along an old pipe line. The animal soon reappeared at the entrance to watch us, and by digging out the burrow and chasing him across the tundra a ways, we were able to catch him. He is now in a terrarium in our lab. The animal is an adult male in full summer pelage. Seems to be quite calm in captivity.

Weasel sign - scats and eaten remains of lemmings in nests (see under Lemmings) - are extensive all over the tundra around Barrow. They have been found around transects 1 & 2 on gasline sedge, around 6 etc also on sedge ground, and around 9 & 10 on intermediate ground. Also all over Central Marsh, in the can area back of GR4 and south of Central Marsh within 1 mile of the gas well, which is as far out as I have investigated. No weasels were seen by us last summer, although





T. Cade  
1958

Mustela vison

24 June - cont

Pete Sovalik found a family of weasels near the village last July.

Mr. B. never saw no one reported seeing weasels all last winter; yet they must have been present in some numbers. Again the data suggest that the weasel population moved into the Baovaw area from someplace rather than having been produced locally from a small resurgence of breeders. If the linnings themselves were moving into the Baovaw area last fall, perhaps the weasels followed them in.

July

Baovaw - Our captive weasel has had a live white mouse caged with him for 3 days. So far the weasel has shown little interest in the mouse and certainly no inclination to kill it. There has been plenty of dead food available in the cage at all times.

When a dead bird is placed in the terrarium, the weasel immediately drops it into his nest. He consumes it there later working the feathers, wings etc. into the nesting material. This would seem to support our view that the





T. Code  
1958

Mustela vison

6 July -

wild weasel, when it takes over a lemming nest, uses the remains to add to the nest. The capture's behavior also indicates that the wild animals may indeed drag dead lemmings into their nests themselves. So there is less assurance that the lemming remains found in nests were, in fact, from animals which froze to death in the first instance. Some of these may have been killed by weasel depredation and then taken back into the lemming nest for consumption. Even so, I still hold that the available information, taken as a whole, indicates that most of the mortality resulted from freezing or other exposure and that the main utilization by the weasels was a secondary result of this heavy, accidental mortality.





Code  
1957

Ussus

10 June - Beaufort area

One was seen along a lagoon on the coast just south of Agiak at 1822.

Another was seen sitting on a creek bank a few miles inland along a drainage S. of Fig A at 1908. It ran down into some willows as we circled around over it.

1 July

Colanugayuk River - two were seen from the air.





T. Coole  
1958

Ursus horribilis (richardsonii)

20 July

Chinaiat

This evening while going to a pond just back of the heavy duty shed to get some water, Harold Griffin suddenly encountered a yawling, which emerged from some tall weeds beside the road to the old transmitter shack and ran at him. Griffin climbed up a new by shed, and the bear ran on into some alder brush and disappeared. We could not locate it afterward, but the dog set up a terrible howl when we took her into the area.

2 July

Colville River - just above Colamnagonuk -

One seen swimming across the river below the falcon bluff - adult

4 July

Colville River - ca 20 miles above Chinaiat - an adult was seen walking over a gravel bar along the river. As the boat approached, it stood upon hind legs and looked at us. It did not run away until I pointed at it from about 75 yds away.

5 July

Colville River - at the coal seam bluff just above Chinaiat - while we were resting on top of the bluff, we saw an adult bear wading out from the left limit of the river. Then it stood up in the river





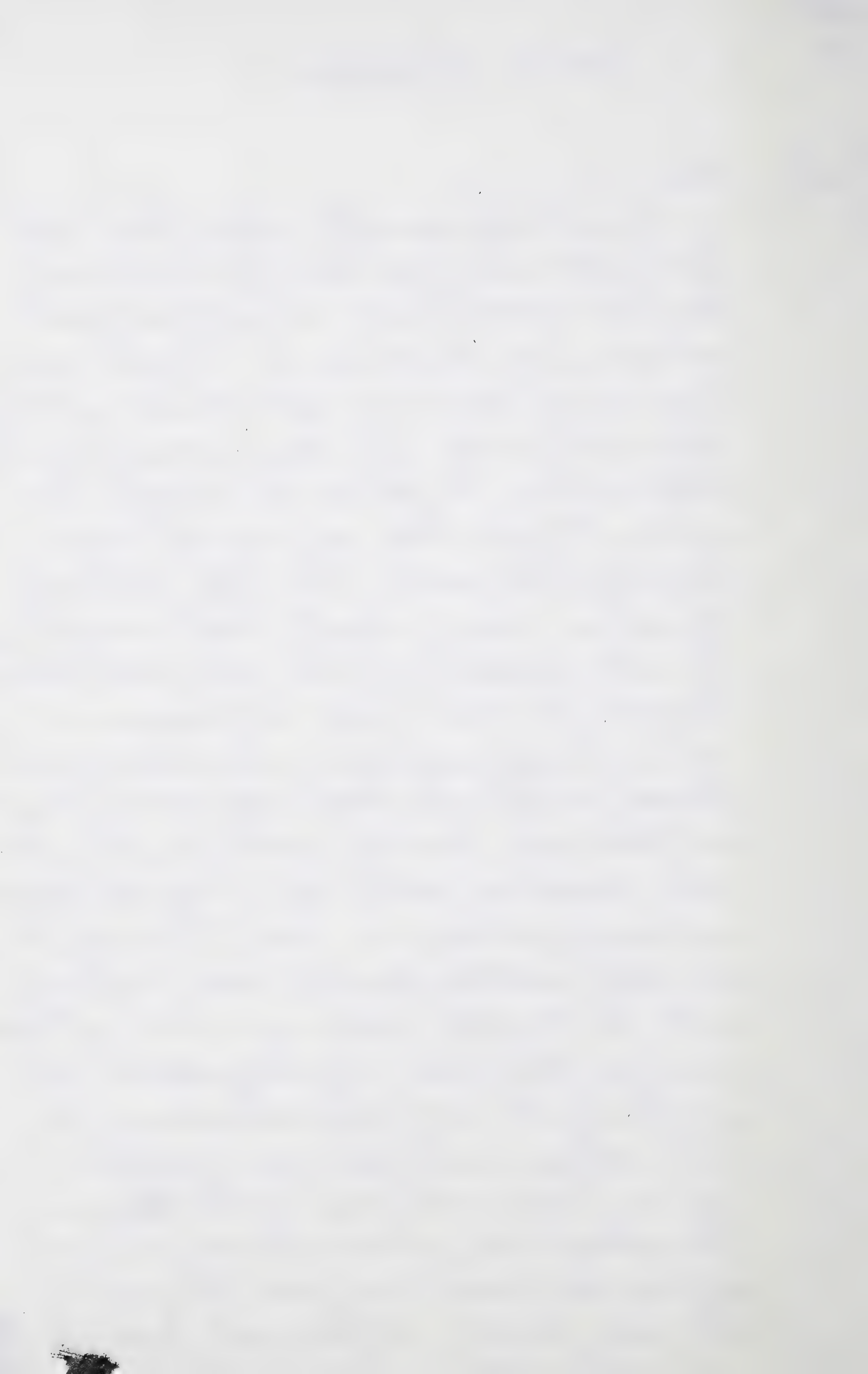
T. Cade  
1958

Ursus richardsonii

25 July

Cont

on its hind legs in water about chest high to the bear. It faced the left limit and barked several times. At first we could not see what it was up to. Then I saw two small cubs on a gravel bar at the edge of the river. The sow was apparently urging them to follow her across the river. At first they ran up and down the edge of the river. She kept barking off and on, and in about half a minute the cubs waded into the river and headed toward the sow. Then she swam on out into deep water in the main current, turned so that her head was up stream, and then she tugged water until the cubs caught up with her. They continued swimming across in front of her while she kept headed up river and drifting with the current, which was strong at this point on the river. As they neared the right limit, one of the cubs seemed to tire. At any rate the sow grabbed it up in her mouth and pulled it up to her shoulders, where the cub climbed up on her back and rode the rest of the way across. At the same time the other cub fell in behind the sow





T. Code  
1958

Ursus harrisi

25 July - cont-

and followed close behind her jump-swimming in the wake of the sore bear. They gained the shore, shook the water out of their fur, and continued on into some willow brush, not stopping to rest on the gravel bar.





Cade  
1956

Alces gigas

~~Field~~ ~~Account~~

23 July - Saviovik River

Ca 2200 Kovanda and I saw two large antlerless (???) moose traversing the river bottom just above the fork of the river. We watched them off and on for half an hour. They were moving along the gravel bars up stream. Investigation of the river bottom revealed much moose sign - tracks, droppings and extensive browse on the willows. I think this may be an eastern record for moose on the slope.

There was evidence of a movement of caribou recently along the river too.

26 July - Saviovik River

About 0900 we saw a cow with twin calves on the western bank of the lake by which we are camped - ca 2000 ft off. Watched these binnies off and on for half an hour. They were browsing in a stand of low willows growing along the bank. Cow waded into lake up to her knees several times. I tried to walk up for a photo but could not get closer than about 400 yds. They moved off from the willows to wade the uplands west of the lake.

Alces gigas  
is more

Alces alces  
per Wilson +  
Reider 2nd Ed.





T. Cable  
1957

Alces gigas

1 July

Columbia River - Dolanmogovik R. -

On our flight up and down, we  
saw 8 cows and 5 calves. No bulls  
were seen.

7-9 July

Columbia River

Two yearlings seen.





Code

1958

Alces gigas

11 July

Uniat & Colville River

During the wolf hunting season on one flight Harold Griffin counted 76 moose between Ocean Point and the Colville Bar. He was certain that he counted every animal. He thought about 30 animals yarded on the large island opposite Uniat Mountain during the winter. There is another yarding area at the Colville Bar. Also he says that the bulls in summer remain high up at the heads of the creeks. This may explain why I have only seen cows and calves on my flights along the main river in the summer time.

This evening Chester Lange saw a yawling along Seabeck Creek just west of the runway.

July

Uniat - Colville River - While flying up to the landing above the Oolamnegavik we saw a moose 32 minutes out of Uniat - at 0137. Later in the day at a point below the Oolamnegavik we saw a bull swim across the river - at 2110.





Code  
1959

Alces gigas

4 June

Cohoille River - Uniat to mouth  
of Killek - total of 6 cows seen.  
No calves.





T. Code  
1954

## Rangifer

11 June Uniat, Alaska

One was seen between Uniat Lake and the steep slope to the N about 2130. I approached within 200 yds in the westerly. It finally went up the hill.

13 June Six seen across the river from Uniat Mt.

21 June Several seen moving on the high ground west of Uniat Mt.

24 June Three seen by T5. One shot by Ben.

25 June Six seen on the road going up the side of Red Hill.

27 June 3 seen in river flat N of Sea Bee Cr.

7 July Two singles seen along the Colville between the Killik and Uniat.

14 July Single seen near T5.

20 August Bands of 15-30 moving through uplands N of Uniat all the time





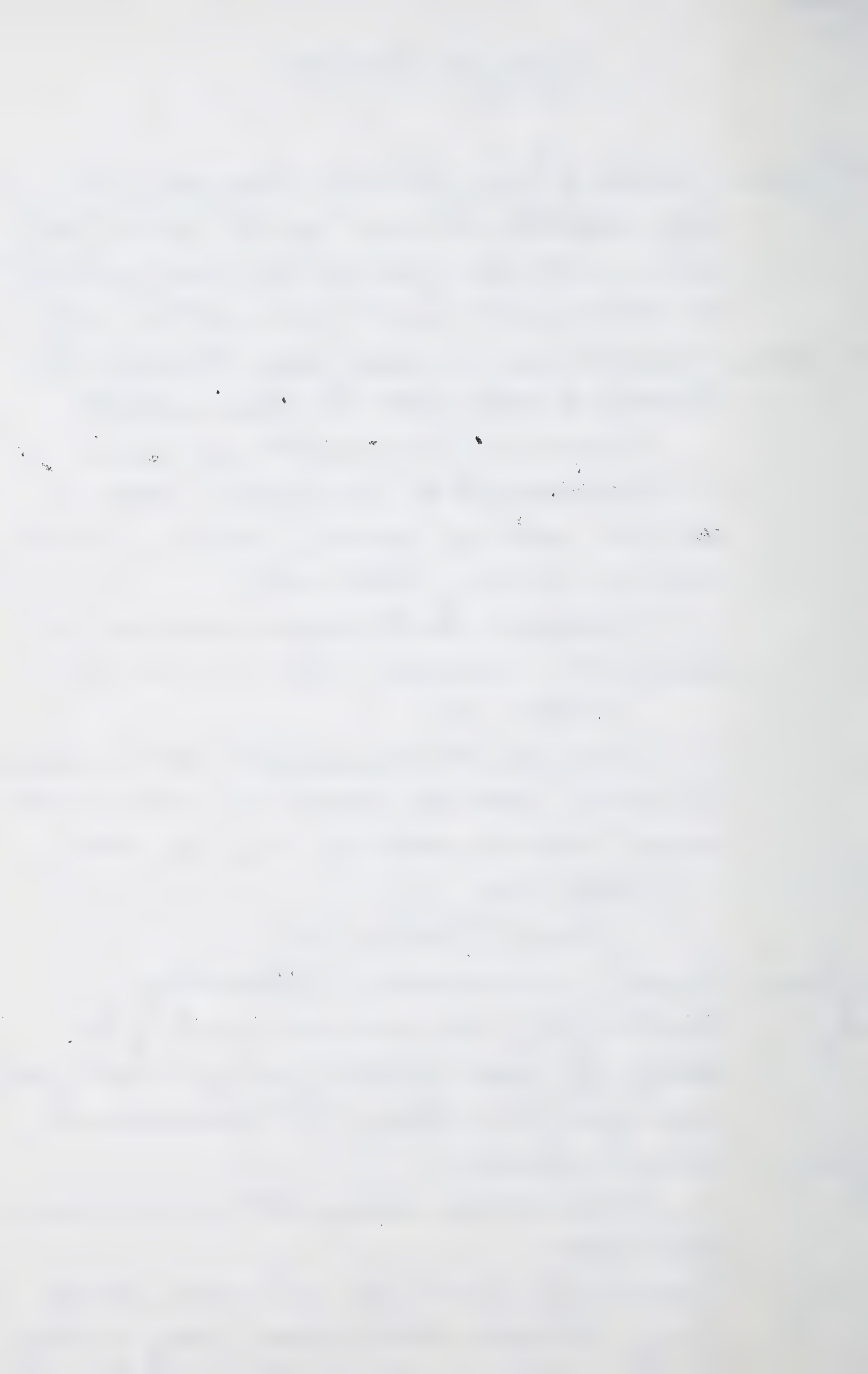
T. Code  
1957

Rangifer arcticus

- 8 June - While flying between Barrow and Cape Halkett, I saw - in the Teshekpak Lake area one group of 5, one group of 3 - all adults - and 1 cow with a calf.
- 10 June Animals seen on trip from Barrow to Beaufort and back to Wainwright  
Barrow to Wainwright - none seen  
Wainwright to Beaufort - 1606-5,  
1607-6, 1609-5, 1609-6, 1616-8, 1621-2,  
1630-3, 1641-6, Total = 36  
Beaufort to Pitmegea and back to Beaufort - 1854-24, 1854-14, 1900-5,  
Total = 43  
Beaufort to Wainwright - 1930-16, 1945-9,  
1959-1, 2000-10, 2000-20, 2004-4, 2010-6,  
2014-5, 2020-3, 2024-18, 2026-3, 2037-1,  
Total = 116

Grand Total = 195

- 8-22 June  
1 July  
Unist - none seen in these days.  
Colville River - one was seen just after taking off from Unist - on an island and one was seen along the Colanmagait.
- 7-9 July  
Colville River  
None seen along the river during these days.
- 15 July  
Wainwright - Point Barrow - at 1020 while flying between these places, saw a large herd right on coast - ca 3,000 to 6,000.





T. Code  
1957

Rangifer arcticus

15 July

Paint Lake

In the afternoon saw one buck between the lake and the river and at the east end of lake there was a calf apparently w/o mother. Its right hind leg was injured.

16 July

Paint Lake

the buck seen again SE of the lake.

5 August

Jago River

Between camp & paint 1 1/2 mi up river - a cow & a bull were seen at widely spaced intervals. Around 1600 while glassing the horizon, I saw a large ~~herd~~ herd on the SW peak of Jago Mountain. The entire top of the peak was covered with moving animals. They were moving toward the SW slope toward the Jago valley. Soble said there have been only a few individuals around all summer.

August

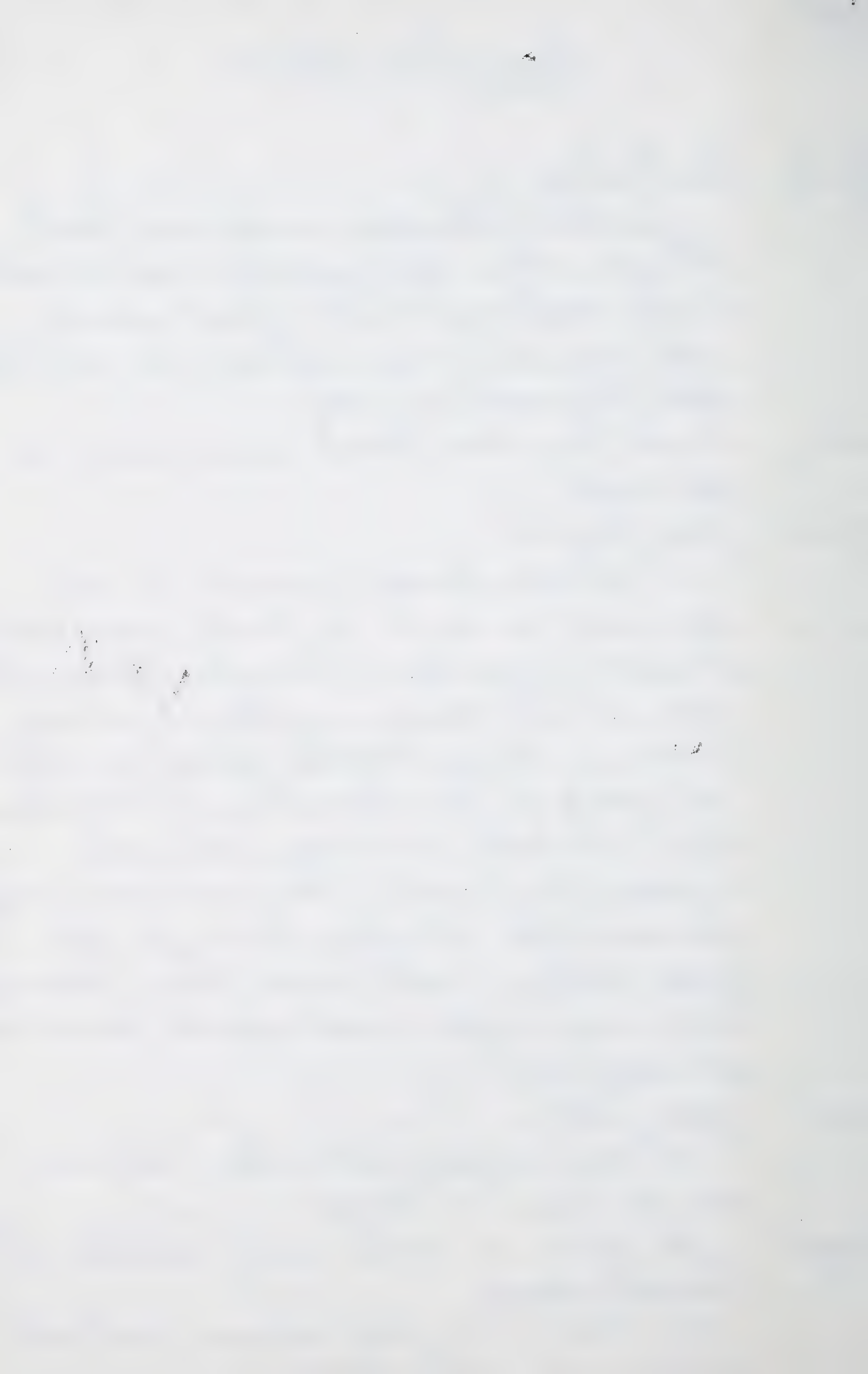
Jago Lake

At 1815 a group of 16 with 1 calf was seen ca 1 mi S of camp

7 August

At 0830 10 with 1 calf walked right through camp.

At 0905 38 were seen on east side of the river and at 0910 - some 2 mi.





T. Code  
1957

## Prangifer arcticus

2 August Jago Lake  
north a large group estimated at  
200 was seen. These animals were  
all moving south up the valley on  
the benchland.

At 12:15 7 with 2 ~~etc~~ calves were  
seen from S of camp.

3 August Jago Lake  
A female was seen in the brush by  
my mist-net at "Upper Lake."

7 August Jago Lake  
A female - probably same as above  
wandered past camp in the early after-  
noon.

8 August Jago Lake  
One seen on east side of river today -  
first in 4 days.

August Jago Lake  
Singles seen here and there on  
every day since last entry but  
today many singles were about. They  
kept coming by the jameway all day  
long - perhaps 20 in all - all singly.





Code  
1958

Rangifer arcticus

18 June East of Barrow

On the flight with Maher and Shanks, I saw a total of 14. Maher saw several others. On the Wien flight to Barrow I saw scattered small groups of 2 to 8 ~~saw~~ north of Uniat.

5 June

Barrow to Meade River - group of 6 seen about 10 miles N of the Meade River along our flight line from Skull Cliff. Later in the day two cows and 2 yearlings came past our transects 7 & 8. One of the yearlings was shot by an Eskimo.

27 June

One lone animal was seen on the ~~left~~<sup>right</sup> limit of the view about 5 mi. above Camp. Uniat (Colville River)

10 July

Harold Griffin told me that during the wolf hunting season the largest concentration of Caribou was centered south of the Colville between the Kuparuk River and the Puvungna Lakes. Later, The FWS people (Sig Olson and Joe Munn) in early June found a spawning ground in the Liberator Lake region of the upper Colville. There they estimated 60,000 cows, 40,000 calves and 20,000 bulls. They saw no wolves at this time, although ~~the~~<sup>there</sup> conditions were not good then for seeing.





T. Code  
1958

Rangifer arcticus

22 July

Colville River - Olanuogavik to Killik Bend

While flying up river we saw one near the mouth of the Killik River.

at 0620 a yearling was seen just above mouth of Olanuogavik. Another was seen in the same vicinity at 0725.

At 2010 a yearling was seen at a point a mile or so below the Olanuogavik.

At 2320 near the Killik Bend a large white-necked bull was seen on a gravel bar.

23 July

Colville River - Killik Bend to a point ca 20 miles below the Killik.

0045 - a small caribou crossed the river by camp.

0930 - another crossed the river by camp.

1530 - just below the Killik another bull was seen.

1600 - another caribou.

1715 - two caribou seen.

1800 - bull caribou

1925 - another bull caribou

July

Colville River - from 20 mi below Killik to 15 mi above Uniat -

1400 - one seen crossing the river

2125 - a yearling w small cow seen

2143 - another caribou seen.

5 July

Colville River - in to Uniat





T. Cade  
1958

Rangifer arcticus

25 July - cont-

1515 - one seen climbing up the high bluff on right limit (second above Uniat).

1555 - one seen seen on gravel bar below the bluff.

1945 - one white-necked bull on gravel bar just above Uniat - standing right where the bears came out of the river.

August

Barrow to Sagaraviktok - Franklin Bluffs -

Ca 5 mi west of Franklin Bluffs - several small groups consisting of a total of about 75 animals were seen.

Franklin Bluffs to Okpilak - total of 42 seen in groups of 2 to 26.

8 August

Okpilak Lake - total of 4 individuals seen around the area of the lake on these days.

August

Jago Lake - one adult bull seen this morning in front of camp. First record for this locale.

September

Melode River - Coal Mine - a group of eleven was seen feeding around shore of lake ca 1 mi SW of the village. appeared to be all cows or young bulls.

September

Melode River - two seen 1 mi W of village. One was shot by an Eskimo.





T. Cade  
1959

Rangifer arcticus

6 June

0 June -  
seen in  
Is of T3.

24 June

8 June

Sadlerochit River - scattered bands of mostly cows and calves, numbering a few hundred all told were seen along the river from a point about 10 miles N of Schwadley to the point where the river breaks out onto the coastal plain. Deer seemed to be moving north along the river valley.

Uniat - Kuwupa & return by air - one seen in valley of Killek R.

Uniat - have been asking the oil exploration teams flying about to keep a look out for caribou. Eastward this, have seen a few scattered small bands numbering a few hundred around Franklin Bluffs. A few days ago they saw a group of about 500 west of Molack lake. This group definitely appeared to be moving westward.

Yesterday they reported seeing "thousands" in the Lufmann Hills 10 to 30 miles inland from Cape Lufmann. The animals in this area were mostly cows and calves and they did not appear to be moving. Many were seen lying down on moss banks.





T. Coale  
1959

Cris dalli

- 31 May Peters-Schwader Lakes - groups of  
9 seen on lower slopes  $\frac{1}{4}$  mile  
south of camp.
- 1 June Peters-Schwader Lakes - Harry shot  
a ram on the west canyon wall  
this morning. I approached  
within 50 yds of a ewe and  
yearling above camp near the  
shrike's nest.
- June Peters-Schwader L. - groups of  
2, 10, and 3 seen on the  
walls of Whistler Creek.
- 3 June Peters L. - 9 on the far back  
of camp.
- 6 June Peters-Schwader - a ewe and  
lamb seen along Carnivore Creek.
- 15 June Peters-Schwader - few - one to a,  
seen daily.





T. Cade  
1956-1959

Alaska

Species Accounts (Part 1)

Birds –(Gaviformes through  
Gruiformes)





T. Cade  
1957

Baria stellata

28 July Pitt Point

One seen in the evening flying over the "back-wash" area just westward of the site.

5 August Jago Lake

Two were seen swimming in Jago Lake between 1700 and 1800. Very wary. They appeared to be well into winter plumage - only one showed a clear red-throat and they were quite gray generally.

6 August

Jago Lake

Pair of loons seen on and off the lake several times today.

7 August

One loon seen landing on the lake late in the evening.

-10 Aug

Jago Lake

Pair seen at least once on the lake each of these days - mostly between 1800 and 2300.

-12 Aug

Jago Lake - seen both days on the lake - pair.

4 August

Jago Lake - pair seen again on lake

20 August

Jago Lake - loons not seen since above entry.

23 Aug

Jago Lake - see account under arctica for this date. These two remained on the lake the rest of the day.





T. Cade  
1958

Bovio stellata

- 25 June Coal Mine - Meade River - two were seen in the river opposite the village when we first arrived.
- 26 June - One seen on a lake  $\frac{1}{4}$  mi S of the village.
- 30 June - One seen flying up river about 2 mi before the village.
- July Barrow - 3 seen this afternoon flying over tundra out from A.R.L.
- July Barrow - two were seen flying near the gas well.
- 22-25 July Colville River - seen at frequent intervals between Oolammagurik and Umiat - usually at the mouth of tributary streams or where two or more channels came together.
- August O'Kpilak Lake - A loon came on to the lake at 1915. At the time there were two broods of sculp on the lake. The loon spent about 15 minutes flapping around across the water chasing the sculp and making a lot of noise. The sculp did not leave the lake.
- 7 August O'Kpilak - loon seen or heard on the lake each evening.
- 15 August O'Kpilak Lake - two were heard on the lake in the late evening, and later they were seen flying over the little lake by the O'Kpilak.





Code  
1958

Baria stellata

19 August, Jugo Lake

One was seen on the lake around 1200. One was again seen flying along the river at 1645. It cut up through the gap out of which the Jugo Lake outlet flows down to the river and landed in the middle of the lake.

20 August, Jugo Lake

At 2000 a loon was on the far end of the lake at the same time two snags were on the near end. Every time the snags swam out toward the middle of the lake, the loon started swimming out toward them, and they always turned back.

2 August

Jugo Lake - Loon seen on the lake at 1835.

4 August

Jugo Lake - loon seen at close quarters on the lake - 1630. Winter plumage better than half developed.

6 August

Jugo Lake - loon heard crying on the lake around 0600.

September

Mead River Coalmine - at 1740 a single adult flew over headed south.





T. Cade  
1959

Gavia stellata

- 28 May Pitmegea River - 5 individuals were seen in the lagoon at the mouth of the river, or out on the water which has overflowed onto the sea ice.
- 4 June Peters - Schwader Lakes - as we were returning from Schwader in the evening in the Barn boat, one was scared up off the stream between the two lakes.
- June Peters - Schwader - 3 again seen in the same place as last account.
- 13 June Peters - Schwader - two heard calling at mouth of Spanning Creek.
- 15 June Peters - Schwader - two seen with same screeps on the water way between the two lakes.
- 19 June Uniat - pair on lake on second terrace just north of airstrip.
- 20 June Uniat - pair on lake at foot of Red Hill.





Code  
1956

Gavia arctica

11 June Unist, Alaska

Two flew off of western end of Unist Lake as I was approaching in vessel, and two more were in the far end when I arrived. They too flew off.

24 June

One seen on a stretch of back-water on the Colville near the float-plane landing area.

12 July

Two seen on a lake near T 5. Very wary.

30 July

One seen in the river below Unist Mt.

early August

Seen commonly on lakes around Unist.

17 August

Three seen on a lake near T 5.





T. Cade  
1957

## *Corvus arcticus*

5 June

Two seen flying between Barrow  
and the Inuaq River.

7-9 July

Colville River

One or two seen along the river  
on each day.

15-16 July

Point Lay

One seen on the lake back of the site  
and several at different times flying  
along the Kotolik R.

27-30 July

Pitt Point

Several seen each day on lakes  
and along the river in vicinity of  
the site. An adult with downy young  
was harassed by jaegers on the river  
in afternoon of 29th - see account under  
S. pomarinus.

August

Jago Lake

A fine bright plumed adult spent  
most of the morning on Jago Lake, diving  
and calling. Around 1130, two red-  
throats landed on the lake and chased  
the larger species all about - flapping  
over the surface as loons do - until  
the arcticus finally flew up and left.  
It took him three turns around  
the lake to get enough altitude to  
fly out of the basin.





T. Cade  
1958

Gavia arctica

25 June

Coal Mine - Meade River -

A pair was seen on the large lake near T 7 & 8.

26 June

Coal Mine, Meade River - a pair seen on a lake ca 1 mi SW of the village. Another flew over the ARL warnigan at 2000.

27 June

- One seen on the river a mile or so above camp.

30  
29 June

- One seen on a lake about 2 miles down river from the village. I made it dive several times before it finally flew off. Each time, just as it was diving it made a sound very much like the bark of a sea lion - one single bark and then clon.

July

Barrow to South Barrow Three - a total of 4 pairs was seen on large lakes. One of these, ca 1/4 mile S of South Bar-3 had a nest. The nest was on a mound of moss about 2 feet in diameter and just above the surface of the lake - near the center. Lake about 50 x 100 yards. We drove out on a tongue of land adjacent to the position of the nest, but could not see into it to count the eggs. One loon, ♀?, remained near the nest, swimming about in a semi-submerged position.





T. Cade  
1958

Gavia arctica

12 July

Uniat, Alaska

Chester shot at an adult on a lake by T5, but he missed the bird.

14 July

Uniat - an adult and two small downies were seen on a large lake SW of Uniat Lake in the late evening. All three were shot for specimens, but the adult dove and was lost. The downies were retrieved. Later a second adult, presumably the ♂, was seen on this lake. The lake has no island or exposed moss mounds surrounded by water; hence the nest must have been on the edge of the lake.

September

Meade River - Coalmine - 7 adults were seen together on large lake ca  $3/4 \times 1/2$  mile in area 1 mi SW of village. At least 2 pairs were represented in this group. Also present was a pair of yellow bills.

September

Meade River - Coalmine - a pair was seen on a lake ca  $1/2 \times 1/4$  mi and  $1/4$  mi S. of the large lake 1 mi NW of the village.

September

Meade River Coalmine - 3 were seen in the river just below the village at 1800, and later three were seen flying up river past the village. Others heard calling thru the day.

Sept

Meade River - see general account





T. Code  
1958

Baria arctica

September Meade River Coahuila - at 1450,  
five adults were seen on a lake  
1 mi south of the village. When the  
yellow bills flew over later, I heard  
these loons make a lot of "quacking"  
noise.

September Meade River. Coahuila - two adults  
seen on a lake ca 3/4 mi N of the  
village by the transects on the river  
terrace. Others were heard flying  
over the village. General movement  
of loons during the past week has  
been definitely southward.





T. Code  
1959

Gavia arctica

25 May Pitmegea River

One flew up river by  
camp around 1900, then turned  
around and flew back down  
river towards the ocean.

9 June Uniat - pair seen on a small lake  
on upper terrace N of the airstrip - near  
Sea Bee Creek.

20 June Uniat - pair seen with some ducks  
on a lake below Red Hill.

1-28 June Uniat - seen several times on lakes of  
the upper terrace near Uniat.





T. Code  
1957

*Gavia adamsii*

16 June -

One seen flying along the ocean at  
Agist Lagoon.

7-9 July, Colville River

One or two seen on each day  
swimming in the river at widely  
scattered points.





T. Code  
1958

*Baris adamsii*

- 21 June Barrow -  
While out with Brock, Maher and the others,  
I saw one of these loons fly over, heading  
in an easterly direction.
- 5 September Meade River - Coalmine - a pair seen  
on a lake about 1 mile SW of village.  
Lake is  $3\frac{1}{4} \times 1\frac{1}{2}$  miles in area, and  
there were also 7 Arctic loons pre-  
sent at the same time. The yellow  
bills kept to themselves at one end  
of the lake, while the Arctic's were  
together in center of lake.
- 3 September Meade River - Coalmine - a pair was  
seen at the NW end of the large lake  
ca 1 mi NW of the village - at 1305. At  
1405 a pair was seen flying north  
toward the same lake, about  $\frac{1}{4}$  mi  
to the south of it.
- September Meade River - Coalmine - at 1730 a group  
of 7 flew over heading south - all  
adults - yellow bills seen.





T. Code  
1959

Garvia adamsii

- 26 June Unnat - one seen flying low over the river at the mouth of Sta Bee Cr.
- 1-6 August Colville - Ki hia kwovak into delta - one on river every day along this stretch of river. At Ocean Point a group of 8 adults was observed to congregate, at first there were 2 loons on the river. Then others began to pass by - singles - at 1-2 minute intervals. Each one wheeled over the spot first and then came in for a landing up river from the group. Then shifted down ca 100 yds to join the group.





S. Cade  
1956

Aurea albifrons

- 11 August - Group of 5 seen twice today at a pond near the gravel pits by the road to Red Hill - just beyond the crossing of Sea Bee Creek.
- 15 August - Group of 5 seen in same place on at least three occasions since above entry.





T. Cade  
1957

## *Anser albifrons*

1 June

One seen flying low over the tundra  
ca 1/4 mile west of the village.

5 June

Several seen between Barrow and the  
Inuvik and along the Inuvik. Of some 60  
birds taken by the duck hunters on the  
Inuvik - the majority were white-fronts.

8 June - Several flocks seen between Barrow  
and Halkett.

10 June A number of groups 2-3-4 seen while  
flying from Barrow to Beaufort and return  
to Wainwright





T. Cade  
1958

Anser allifrons

18 June east of Barrow

Seen frequently on the flight with  
Mallards and 5 hawks - in pairs and groups  
of 3 to 4 - scattered generally over the  
area we covered but perhaps commonest  
along the coast.

25 June

- Barrow - Meade River - two to three  
pairs seen while we were flying to  
Meade River.

27 June

Coal Mine - Meade River - two seen flying  
across the river about 4 mi. above camp.

3 Sept

Meade River - Coalmine - two adults were  
seen flying over the W end of the  
large lake 1 mi NW of the village.





T. Code  
1959

Anser albifrons

- 20 May Pitmelea River - 3 were seen flying around the mouth of the river as we were landing. Singles and a pair were seen later passing by camp.
- 21 May Pitmelea - heard several times around camp.
- 22 May Pitmelea - two seen flying in advance of flock of 18 to 20 mixed geese. - headed north.
- 23 May Pitmelea - two pairs seen in the area around camp.
- 24 May Pitmelea - groups of six seen flying down river between the gravel cliff and camp.





T. Cade  
1957

Philaete canagica

10 June -

Flock of six seen on a lagoon south  
of Point Loe.

Philaete canagica  
is now  
Chen ~~canagica~~  
Canagica  
pu Nov 1998





T. Cade  
1958

Philacte canagica

25 July

Colville River - ca 10 miles above Uniat  
A single bird in adult plumage  
was seen with a flock of about 10  
flightless Canada geese. The Emperor  
could fly but was reluctant to do so,  
perhaps because there was a strong wind  
and rain was falling. Nevertheless, we  
could not get close enough for a shot, but  
the bird was clearly seen from about  
40 yards. There is no previous record  
of this goose for the river.

Philacte canagica  
is now  
Chen canagica  
per AOU 1998





T. Code  
1958

*Chen hyperborea*

18 June - east of Barrow

Saw a flock of about 20 flying  
near Smith Bay.

*Chen hyperborea*  
is now

*Chen caerulescens*  
per AOU 1998

*Chen hyperborea*  
is now  
*Chen caerulescens*  
per AOU 1998



T. Cade  
1954

Chen hyperborea

- 20 May Pitmegea River - three were seen flying up the river past camp in the late evening.
- 21 May Pitmegea - 3 seen sitting at mouth of creek on left limit of river about half a mile above camp in late afternoon.
- 22 May Pitmegea River - flock of 18-20 seen flying over the river above the east end of the study area, headed to river the south - around noon.
- 23 May Pitmegea River - Flock of 20 seen flying over river by camp around noon, and two flocks of about 10 each were seen up river in the afternoon.
- 26 May Pitmegea - flock of 25 seen on the flats across the river from the gyrfalcon cliff. A smaller group of about 12, was seen on the flats across the river from camp.
- 27 May Pitmegea - one flock of 30 seen on upland tundra along the coast below mouth of river ca 1 mi. Two flocks of about 20 each on the tundra across the river from camp.





Branta canadensis

13 June

Uniat, Alaska

Two seen on a gravel bar below Uniat Mt. and others heard down river. One seen flying late in evening near Uniat Lake.

14 June

Two flew over T6 about 2100.

18 June

Two seen flying over Uniat Lake about 2300.

21 June

Seen or heard near Uniat Lake on each day.

24 June

One seen on the road near Sea Bee Co - west end of airstrip.

26 June

Two seen on the road in same place. In the late evening six were seen together on a lake in the same area as above.

30 July

Twenty-five-thirty flightless adults were seen on the gravel bars of the big island below Uniat. When pursued, they escaped into dense brush.

1 August

Six flightless young seen with adult on a small lake of the same island.





T. Code  
1957

*Branta canadensis*

21 June, Uniat, Alaska

Two were seen in the afternoon at a small lake near a<sup>+</sup> between T5 and T7. They were near a mixed group of water fowl.

24 June One seen by a pond to the east of T5 near the road by the gravel pits.

30 June - None seen along the entire extent of the bluff area around Uniat Mt. where they were nesting in 1952.

7-9 July Colville River

Seen frequently in flocks of 3 or 4 up to as many as 24 on gravel bars, banks and bluffs along the River. Two were flushed off of nests on bluffs as we passed by in the boat, but no nests were found while we were on the ground at any of the cliffs.

27 July

Pitt Point

A flock of 20 odd birds were seen around a small lake .5 of the mile as we were making our approach to land.





Cade  
1958

Branta canadensis

22 July

Colville River - above Killik

None seen between Colanmagayuk  
and Killik Rivers.

23 July

Colville - below mouth of Killik

1600 - flock of about 20 molting adults  
seen in the river and running over  
gravel bars.

1630 - flock of 12 more molting adults

1815 - flock of 9 " " "

1845 " " 7 " " "

1905 " " 12 " " "

2100 " " 13 " " "

24 July

Colville River - from ca 25 mi above Inuit

2130 - flock of 12 molting adults

25 July

Colville River - from ca 15 mi above Inuit

1200 - flock of 15 molting adults

1430 - " " 10 " "

1630 " " 15 " " and

7 downy young with 2 adults.

These groups of geese were encountered  
usually along islands with extensive  
gravel bars with brush in the interior  
and usually where two or more channels of  
the river were running close together. When  
closely chased in the water they dive and  
can stay submerged for about 1 minute.  
They will dive repeatedly when pursued  
by a boat with motor.





T. Code  
1958

Branta canadensis

- September Unmist - several seen about a lake near the installation as we were landing on the field.
- September Unmist - heard honking in an area SW of the airstrip.
- September Unmist - geese again heard in this area. Chester saw some near T5.





1. Code  
1959

Branta canadensis

- 21 May Pitmegea River - three were  
seen sitting on a mud bar near  
some willows ca 2-3 ft high  
on the right bank at a point below  
the up-river end of the long  
ridge above camp.
- 4 May Pitmegea - flock of six seen between  
camp and mouth of river.
- 19 June Unnat - 3 seen flying over See-  
Bee at the east ford. Three  
seen again in the late evening  
over the upper terrace near the  
gravel fill on aligator woods.
- 28 June Unnat - few seen just about each  
day around lakes or along the river -  
2-3 at a time.

Branta nigricans  
is now  
Branta bernicla  
per AOU 1995



T. Cade  
1957

## *Branta nigricans*

5 June

Several seen along the Inuvik, and the duck hunters we met had shot several.

8 June

A good number in flocks seen on the coast N of Terketpak Lake.

10 June

Seen commonly in flocks of 6-12 between Wainwright and B. Bay along the coast.

27 July

Pitt Point -

A flock of some 30 birds were seen around a lake westward of the site as we were making our approach to land.

28 July

Pitt Point

A destroyed nest was found 20 yds from owl nest #1. Broken egg shells were all around and the nesting material had been torn into and thrown around. At the owl nest, the wings and pectoral girdles and legs of 2 adult brant were also found. Bill, Shane, the Station Chief, said that earlier he had found some 10-12 brant nests on the "island area" around the site (see Maher's map). He had noted that the brant frequently nested close to owl nests. There were many other brant near the old village





T. Code  
1957

Branta nigricans

28 July

Pitt Point

west of the site. Apparently there was a 100% failure of this nesting attempt by the brant. This may have resulted because of the early seasonal decline of the lemming population and the consequent predation by arctic foxes. Why brant "insist" on nesting near arctic is a question that begs for an answer.

29 July

Pitt Point

A flock of some 50-60 were seen on one of the lake-like areas of the reserve ~~the~~ SW of the "water" lake.





T. Code  
1958

Branta nigricans

18 June east of Barrow

A flock of 15 or so was seen in  
the delta country of Smith Bay.

Branta nigricans  
is now  
Branta bernicla  
per AOU 1998



T. Code  
1957

## *Olor columbianus*

10 June One seen between Barrow and Kainwright  
at 1500. A pair seen coming into Kainwright  
from Blaufort at 2023.

*Olor columbianus*  
is now  
*Cygnus columbianus*  
per AOU 1998





T. Cade  
1958

Olor columbianus

18 June - east of Barrow

A total of 3, a pair and one single, was seen while flying with Maher and Shanks. The pair was in the delta at Smith Bay and the other was back of POWA in the owl area.

25 June - Coal Mine, Meade River - one was seen flying over the village around 1900, while we were walking back from T 7 & 8.

1 July Uniat (Wolf Button Lake) - Pete Mewick reported seeing a pair of breeding swans on Wolf Button Lake in the vicinity of  $39^{\circ}49'N$  and  $148^{\circ}57'W$  long. He also said there were 7 or 8 swans at POWD on the coast west of Barter Island.

August ca 5 mi ~~west~~ west of Franklin Bluff, Sagaraviktok River - two adults were seen on a lake while we were flying in to land at the Soga camp.

*Olor columbianus*  
is now

*Cygnus columbianus*  
per AOU 1998





T. Code  
1959

Mareca americana

23 May Pitmelea - a pair flew down  
the river past camp in the morning  
and in the afternoon about six  
were seen with a flock of pen tails  
on the willows stubble but up-  
river from camp "2 miles on the  
night limit."

18 June Christ - Mike Daniels reports  
having seen several (one pair)  
around Christ in the last few  
days.

Mareca americana  
is now  
Anas americana  
per AOU 1998



Code  
956

Anas platyrhynchos

5 August - Uniat, Alaska

Saw three ♀♀ or young of the year in the long pond along the S side of air strip at eastern end near T6, in the morning. Saw two in the same place again in the evening.





T. Code  
1957

*Anas platyrhynchos*

21 June Uniat, Alaska

One drake, seen on a lake between  
T3 & T7 with other ducks - pintails,  
scaups, oldsquaws.





T. Code  
1958

Anas platyrhynchos

- 9 July Uniat, Alaska  
Griffin saw a hen with 5 downies about 10 days ago. She was on the long pond at the SE corner of the airstrip. Earlier he had seen a pair of mallards in this area several times earlier.
- 2 July Uniat - a hen with 4 feathered but flightless young was seen on a pond just south of the main Uniat camp - along the road going out to the old transmitter shack.
- 13 July Uniat - another hen with a brood of downy chicks (4), smaller than those seen yesterday, was reported by Rodke and Wilcox, who walked out along the telephone line to the radio station west of the main installation.
- 14 July Uniat - a hen was seen in an incised gravel pit along the SW side of the airstrip.





T. Code  
1959

Anas platyrhynchos

- 24 May Pitmelea River - three birds flew by camp today - reported by Maher - not seen by me.
- 29 May Cape Beaufort - a drake <sup>shin</sup> were seen with the water fowl - showed concentration at the pits.
- 31 May Peters - Schwader Lakes - Bobby tells me he has seen a drake several times in the open water area between the lakes.
- 1 June Peters - Schwader Lakes - one drake was seen in company of 3 pintails and some scaups.
- 4 June Peters - Schwader L. - not seen today in the area previously noted.
- 6 June Peters - Schwader L. - a male was seen on Carignone Creek valley in the pond in the center of Round Meadow. Perhaps the same one referred to above, as it has not been seen in the former locality lately.
- July Uniat, Alaska  
3 males flew off a pond on the south side of the runway.



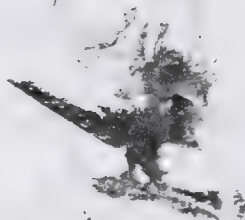
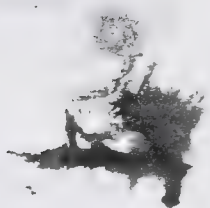


T. Cade  
1959

Spatula clypeata

- 29 May Pitmelea - a ♂ flew up from the back water by the lake behind the tent when the plane came in.
- Cope B equifort - a ♂ was seen with the concentration of birds at the dewline site.
- 21 June Uniat - a bright plumed drake was seen with pin tails on a pond along alligator road just above the block out the upper terrace.
- 23 June Uniat - a pair was seen to fly across the east end of the air strip and land on a pond close to the south edge of the strip.
- 26 June Uniat - drake seen sitting at edge of pond on N side of runway.

Spatula clypeata  
is now  
Anas clypeata  
per AOU 1998





T. Code  
1956

Anas acuta

11 June Uniat, Alaska

A pair seen on a melt water pond west of Uniat about 0300. A single ♂ was also seen flying in the area.

At least four, appeared to be 2 pair, seen in melt water pond on S side of air strip about 1945. Several seen in the vicinity of Uniat Lake.

12 June A flock of 25 was seen flying near "Bee's Lake" at the base of the hill with the red spot. Several others were seen around water in the river bottom.

13 June Several pairs seen about ponds in the river bottom.

14 June A pair seen on a little lake just south of west end of air strip.

21 June Some seen each day since above.

24-25 June Two ducks seen on a lake near the west crossing of Sea Bee Cr.

28 June Two ducks again in same place.





T. Code  
1957

*Anas acuta*

4 June

Two drakes and a hen were seen in a melt water pond just back of Mainwright.

5 June

Quite a few seen in pairs and groups of 5-7 along the trail to the house and along the Innau.

8 June - pair seen at Half-Haven - Three.

11 June Pair seen near T 4

12 June " " " " - several other individuals seen in other localities

18-21 June

Scattered pairs seen around lakes on the river terraces. About half a dozen pairs in these deep. Group of 5 seen on a lake between T5 & T7 with other ducks.

25 June

A drake with 3 hens seen on the pond at the upper end of T6 along the airstrip.

7-9 July

Columbia River

A few seen along the river but not common.

5-16 July

Point Lag

Three individuals seen on these days - water fowl decided by name in the area - not much in the way of ponds around.

29 July

Pitt Point

Seen very commonly in flocks of 10-30 all along the river. Several hundred birds in all.





T. Cade  
1958

Anas acuta

18 June - east of Barrow

Seen frequently in pairs and groups of 2 drakes and 1 hen on the flight with Males and 5 hawks.

19 June Barrow -

In the area where we were working on the transects, Brock and I saw one group of 5 with 3 ♂♂ and 2 ♀♀, and another group of about 12 with males and females. In addition, several other pairs were seen. This species seems rather more common than last year.

20-22 June Barrow - seen daily in small groups and in pairs.

23 June Flock of 12 seen with 5 tiller's eiders on a lake at south west corner of Central Marsh. Others in pairs.

5-26 June Coal Mine-Mead River - several females seen within half mile radius of the village - no drakes present. In evening of 25th - ca 60 yds down river from stake 0.0 of TL in the willow scrub on the bank of river across from the village, I flushed a hen off a nest of 8 eggs. The nest was in a slight depression under a willow about 2 feet high - in a dense stand whose average height is also about 2 feet. Nest lined with thick layer of ventral feathers from the duck.





T. Cade  
1958

Anas acuta

26 June

Coal Mine, Meade River

Several hens seen scattered about and one pair present on lake 1/4 mi S of ARL Warrigan.

7 June

A ♀ seen on a pond near T 3 & 4 in the river bottom.

10 June

- two hens seen together on a lake near T 3 & 4 in the early afternoon, and around 2:30, I flushed 4 hens out of the creek bottom near the end of the airstrip as I was walking out to T 1.

7 July

Barrow to South Barrow 3 - several flocks seen or single hens (see general account). A male with fresh wing feathers but otherwise in heavy eclipse molt was found dead at south end of Ikroavik Lake. It wore a 58 series band, which Max Brewer will turn into FWS.

7 July

Uniat - Hal, briefing reported having seen a ♀ with a brood of 7 downies about 4 days ago. I saw a hen on a lake near the runway in the late evening.

6 July

Uniat - a ♀ was seen on a lake near the Range Station.

18 July

Uniat - Andy, the Bowman Shepherd, caught one of two ducklings in a pond by the runway. The bird weighed ca 400 gms. No





T. Code  
1958

Anas acuta

18 July

primaries were growing out yet, but scapulars were coming in and tail feathers were ca. 30 mm long. Also in the evening Chester saw a hen in a ditch near the power plant with 10 small downies.

20 July

Unnat. while taking up traps on T4 I saw a duck apparently floating dead in the water of a narrow ditch. I walked up to it and was just reaching down to pick it up, when the duck suddenly raised its head up out of the water, squawked and flew away. It was a hen. Apparently she had had her head under the water dabbling as I approached, and did not see me coming.

September

Mead River - Coalmine. Three adults were flying over lake ca 1 mi SW of village. Others were heard cackling in adjacent places.

September

Mead River Coalmine - three were seen on a mud flat along the river above the village with 5 old squaws.





T. Code  
1959

Anas acuta

- 20 May Pitmegea River - at mouth of river - a flock of 7 ♂♂. Later a pair flew past camp.
- 21 May Pitmegea - a number of birds - possibly 20 - congregated in the area at mouth of river. Several others seen at points up river above camp.
- 22 May Pitmegea - flock of a dozen seen below camp.
- 23 May Pitmegea - six or eight flocks of from 6 to 20 birds seen during the day. Preponderance of males, but some "pairs" seen within the flocks.
- 24 May Pitmegea - flocks seen around camp all day.
- 25 May Pitmegea - flocks and pairs seen at various quarters on the tundra.
- 6 May Pitmegea - pairs seen stationed out around little puddles all over the tundra between camp and the gyrfalcon cliff.
- 7 May Pitmegea - pairs stationed out on tundra back of camp.

One peculiar bit of behavior observed near the coast this afternoon. Three birds appeared over the horizon





T. Coole  
1959

Anas acuta

27 May

can't  
flying toward the mouth of the  
river rather high in the air -  
ca 200-300 feet. Two were  
drakes and one a hen. The hen  
kept up a constant squaking  
as she flew. She was followed  
closely in flight by one drake,  
the drake seeming to mimic her  
movements almost exactly a little  
to one side and behind her. The  
other drake trailed a few feet  
behind these two. Just before they  
passed over me, another drake  
suddenly arose from the tundra  
ca 60 yds away and flew almost  
straight up to join the flight of  
the three passing over. As the group  
passed on toward the lagoon, another  
and then another drake suddenly  
rose straight off the ground to join  
the flying birds. I was impressed  
by how vertically they could rise  
without circling. The six birds  
then willed around in the air over  
the lagoon, the drake squaking  
incessantly all the while. Two more  
birds (drakes?) got up from the lagoon





T. Cade  
1959

Anas acuta

27 May

cont

and joined the flight, so that there were finally 8 birds milking in the air, only one of which was a hen as nearly as I could see. Finally they broke up into two groups of 4 each and landed on the mud flats near the lagoon at the mouth of the river.

29 May

Cape Beaufort - about 50 were seen in the melted area ~~near~~ between the air strip and the site. Water fowl and shore birds were concentrated here apparently because it was the only open water around - the cold north wind heaving frozen cover the melt water ponds over large tracts of tundra.

May

Peters - Schwader Lakes - Hobby tells me there are 5000 frequenting the open water between the two lakes.

June

Peters - Schwader Lakes - 3 ducks were seen along the snow-banked stream between the two lakes.

4 June

Peters - Schwader L. - two ducks seen on stream between two lakes both morning and evening.





T. Cade  
1959

Anas acuta

- 8 June Peters-Schvader Lakes - on a large exposed sandy flat between the two lakes there was a group of 26 birds, 18 drakes and 8 hens. No display or sexual activity was seen.
- 19 June Umiat - a hen was flushed out of some 3 ft willows along a drain just back of camp. Another was flushed from margin of small pond on upper terrace.
- 20 June Umiat - 3 drakes on a lake on upper terrace below Red Hill.
- 21 June Umiat - about 5 drakes and 2 hens seen on a pond along alligator road.
- 28 June Umiat - seen just about every day, single hens or groups of 2; 3-5 drakes - no pairs.





T. Code  
1956

Anas carolinense

11 June Unalakleet, Alaska

One drake was seen flying near USGS hut about 1600, and a pair was seen later in the evening by the air strip.

18 June

A drake seen alighting on a small pond by the road near T8 about 2000.

21 June

Two drakes were seen along Sea Bee Cr where the road crosses at east end of air strip. A hen was flushed from a puddle in a brushy area along E bank of the creek in same area.

22-25 June

A pair seen each day on the same small pond by the road going up to Red Hill. Male is courting. Very tame - I watch from 20-25 yds in vehicle. ♀ always goes ahead of drake.

14 July

A small duckling believed to be this species was caught in mouse trap on T5 - unharmed - when released swam and dived normally.

Also saw a mealy hen by a small pond near the west crossing of Sea Bee Creek.

19 July

A pair seen on a small lake about half a mile east of east end of runway. No young seen

Anas carolinensis  
is now

Anas crecca

per AOU 1998



Code  
1957

*Anas carolinensis*

18-21 June, Unalakleet, Alaska

Scattered pairs, about half a dozen,  
seen in three deep on lakes of the  
river terrace.

28 June Unalakleet - a pair seen on a pond near T8.

*Anas carolinensis*  
is now  
*Anas crecca*  
per AOU 1998





T. Cade  
1958

Anas carolinensis

10 July

Uniat, Alaska -

Chester and I saw a ♀ with 10 downies on a pond about 15x10 yards in area on the upper river terrace by alligator road. General vegetation is wetland grass, and grass-ledge marsh, with some wet dwarf shrub mixture.

11 July

Uniat - same hen and brood seen on same pond today.

September

Uniat - one seen on a pond near Alligator Road - in all brownish plumage.

16 Sept

Uniat - one seen each day on the same pond - looks to be a hen.

Anas carolinensis  
is now  
Anas crecca  
per AOU 1998





T. Code  
1959

Anas carolinensis

- 6 June Peters-Schroeder Lakes - on the  
Carnivore Creek valley - on the  
pond in the center of Round Meadow  
there was 5 teal with themallard.  
At first three got up - looked like  
2 drakes and a hen; later a pair got  
up. I shot the hen but could not  
find her in the tall grass (not  
Arctophila) growing out of the water.
- 14 June Peters-Schroeder L - a single hen  
was seen at margin of a small pond  
at Phoebe Meadows. A pair of teal  
and 2 drakes on the Arctophila  
pond in center of Round Meadows.
- 21 June Uniat - single hen seen on pond  
along alligator road.
- 22 June Uniat - single hen seen on a pond  
near Uniat Lake.
- 27 June Uniat - pair seen on small pond by  
gravel pit along alligator road.

Anas carolinensis  
is now  
Anas crecca  
per AOU 1998



Cade  
1956

Aythya marila

- 11 June Umiat, Alaska  
A group of 18 (all pairs, I think) was seen with 2 pairs of old squaws on a melt water pond along S side of runway about 2000. A group of 20-30 ducks seen indistinctly on east end of Umiat Lake was composed mostly of scaups.
- 13 June A pair was seen on a pond near the river east of Umiat.
- 14 June Four or five seen on the lake on north side of east end airstrip near T6.
- 21 June Some seen on each day since above - mostly on or near Umiat Lake.
- 24 June Two seen on lake near T7
- 19 July A brood of 5 and one of 6 seen with hens on Umiat Lake.





T. Code

1937

## *Aythya mavila*?

- 21 June, Umiat - Six seen with other waterfowl on a lake between T6 & T7 in the afternoon.
- 25 June, Umiat - two pairs seen with the pin tails on the pond at upper end of T6.
- 7-9 July Colville River  
Several seen on the river - all drakes.





T. Cade  
1958

Aythya manila

4 August Okpilak Lake

A female with a brood of 8 1/2 green ducklings was seen on the little lake just SE of Okpilak.

5 August

- Two hens each with a brood of 8 ducklings ~~was~~ seen on Okpilak Lake in the evening. At this time there were up ducks on the little lake, so one of the groups apparently had moved down the drain from little lake into Okpilak. These broods were harassed by a red-throated loon.

6 August

- In the morning, hen & 8 were back on the little lake. In the evening two broods again on Okpilak.

7 August

both broods on Okpilak all day.

8 August

- hen & 9! young seen on Okpilak this morning. One young from one brood must have strayed to the other brood.

9 August

Okpilak Lake - 0900 - female & brood of 9 on lake by camp.

17 August

Okpilak - brood seen on each of these days on the lake.

18 August

Okpilak - two broods seen again - one of 9+ hen & one of 5 or 6 - same as previous group of 8? - mortality? I shot one of the 9, nearly fully feathered on body.





Cole  
1958

Aythya americana

- 18 Aug Cant  
lent head & upper neck still downy.  
Tail about fully developed but wing  
feathers still in sheaths & only ca 4 inches  
long. Specimen destroyed by eyas  
falcons before I could skin it.
- 19 August, Jago Lake  
Re 45 - two adult males in nearly  
full winter plumage, were seen on the  
near side of the lake. They landed  
near the float plane landing and then  
swam out toward the middle of the lake.
- 20 August, Jago Lake  
2000 two drakes again on the  
lake. A loon was present at the same  
time.
- 7 August Okpilak Lake - two broods seen as  
we were taking off in the float plane.





T. Cade  
1959

Aythya americana

- 1 June Peters-Schroeder Lakes - two pairs  
were seen on the stream between  
the two lakes.
- 4 June Peters-Schroeder L. - on the stream  
between the two lakes - a hen was  
seen in the morning, scared up by  
the bomb guardian, and in the evening  
two drakes got up.
- 5 June Peters-Schroeder L. - two pairs on  
the snow-banked stream between  
the two lakes.
- 11 June Peters-Schroeder - pair seen on the moat  
around the little lake at NW corner of  
Peters. Acted as though settled there for  
breeding.
- 12 June Peters-Schroeder L. - pair seen on the flats  
by a puddle of irrigated sedge tundra -  
near the little lake where seen yester-  
day. They kept circling me around the  
tundra puddle.
- June - little  
in or lake again
- 15 June Peters-Schroeder - 3 pairs seen on  
the water way between the two lakes.
- 20 June Uniat - 4 drakes & 3 hens on a  
lake below Red Hill.
- 21-28 June Uniat - seen daily on lake of the  
upper terrace.





Cade  
1957

*Polysticta stellaris*

5 June

One pair seen on the beach. The male was shot but fell into the river and drifted to the far side and could not be retrieved.

11 June

A pair seen near Bainwright T3 - acted as though attached to a mudflat pond near by.

12 June

Flock of six, 309, 59, seen flying over tundra near T4

29 July

Pitt Point

Just S of the air strip in the area of nest #4 a female with 4 downy young was found on a pond ca 10 x 20 feet in area. They were being harassed by jaegers when first seen (see account under S. pomarinus). I would not leave the pond even when I walked right up to edge. A sudden movement would cause the downies to ~~go~~ dive. They would barely break the surface and dive again, until exhausted. I kept up a constant quivering noise. Once or twice she too dove, but she never seemed ready to take flight. When I retreated a few yards, she came out and stood on a mound by the pond and seemed to be watching the jaegers which stayed





T. Case  
1957

*Polysticta stellaris*

near by. When a jaeger would fly over, she would flap back into the water and make a peculiar jerking motion with head & neck. Some of the loons made the same motion. If a jaeger came very low over the pond, I would up at it, flapping her wings. There was an added egg in a nest on the marsh by the pond.

28 July

Pitt Point

Three drakes & hen and 3 ducklings seen on a pond in the "back wash" area west of the site.





T. Code  
1958

Polysticta stellens

- 20 June Barrow - Brock and I saw a flock of about 25 - mostly in pairs just to the west of Central Marsh - near T1 & 2. When we flushed them, several of the pairs broke from the flock and flew in separate directions.  
In the evening we saw a group of 9 ♂ and 7 ♀ on a pond near where the larger group was seen earlier.
- 21 June - flock of 6 ♂ and 3 ♀ seen on a lake at the south end of Central Marsh around 1524. They were feeding by tipping up in the fashion of dabblers.
- 23 June - At 1600 7 pairs of Steller's were seen on a lake at SW end of Central Marsh. Birds were definitely keeping in distinct pairs.
- 6 July Barrow flock of 11 females and 1 male seen on the Salt Lagoon in the afternoon.
- 7 July Barrow to South Barrow 3 - in vicinity of E. shore of Ikroavuk a flock of 22 ♀ & 3 ♂ was seen.





Cole  
1957

*Arctometta fischeri*

# June

Three or four pairs seen between  
Barrow and Wainwright. No flocks.

3 June

Several birds seen in pairs along or  
near the Inuits.

*Arctometta fischeri*

~~per~~ is now

*Somateria fischeri*

per now 1998



T. Code  
1958

Lampronetta fischeri

20 June - Barrow - In the morning Brock and I saw a pair resting beside a small pond on the west side of Central Marsh. May have been the same pair Brock saw several days ago.

7 July South Barrow - 3 - a ♀ was seen by a lake ca 1/4 mi S of the well

*Lampronetta fischeri*  
is now  
*Somateria fischeri*  
per AOU 1998





T. Code  
1958

Somateria spectabilis

6 July Barrow, Alaska

A male in immature plumage was seen on shore ice by the outlet to the lagoon on west side of the installation.

7 July Barrow to South Barrow-3- two females were seen by a pond between the latter station and the gas well. Two other unidentified P. leucos in this general vicinity may have been this species also.





T. Cade  
1957

*Somatensis mollissima* V-nigra

5 June

A good number were seen in flocks  
along the beach - perhaps 60-75 seen in  
all. Also seen over the tundra between  
Barrow and the Inua.



T. Code  
1956

Melanitta perspicillata  
~~fusca~~ (?)

11 June

Uniat, Alaska

About 2030, a pair of black ducks with white wing specula flew along the Colville about 1/2 mile below Bearpaw Creek. I believe it was this species. A pair was also seen over Uniat Lake about an hour later. White on wings very conspicuous on both ♂ & ♀.

13 June

A pair seen flying out over the river near mouth of Sea Bee Creek, late in evening.

17 June

Pair seen on the lake at the end of T6 by the airstrip.





T. Cade  
1958

Melanitta perspicillata

25 June

Coal Mine - Meade River, Alaska

One of the Eskimos - Johnnie - showed  
up an adult male which he had shot  
here some days ago. It had been frozen  
for keeping.





Code  
1959

Melanitta perspicillata

13 July

Colville below Keweenaw - a flock of  
over 100 males was seen on the main  
river.

14 July

- apparently same flock seen a few  
miles down river early the next day.



T. Cade  
1956

Clangula hyemalis

11 June 1956

About 2000 two pair were seen with scups in a melt water pond on S. side of run way. There was no courting behavior.

12 June

a drake was seen with a group of N. phalaropes on a melt water lake at the west end of the air strip.

13 June

one drake seen on a pond east of Unist.

18 June

Three or four seen on Unist Lake in late evening.

21 June

Seen each day on Unist Lake

24 June

Pair seen on lake near T7

19 July

A brood of 6 and hen seen on Unist Lake





T. Cade  
1957

*Clangula hyemalis*

3 June

John Campbell and I saw a flock of six fly over the beach ridge about midway out to the Point around 2030.

5 June

Several flocks seen along the margin of lakes between Bassett and the Ingon and flying along the Ingon. Some of these flocks were up to 30 birds or so.

13 June, Wainwright, Alaska - pair seen on pond near T3.

18-21 June, Umiat - Seen rather commonly in pairs on lakes of the river terrace. Few or five seen in a mixed group of water fowl on a lake between T5 & T7 on 21st.

16 July

Point Lay

One seen on the large lake back of the site.

27-30 July

Pitt Point

A few scattered pairs seen on ponds and along the river but decidedly not common in this area.

Aug (entry)

Jago Lake

Sable said he had seen a few pairs of these ducks earlier in the year on various lakes in the Jago valley.

19 August

Jago Lake - one seen in the evening on "Upper Lake" It would not fly when I threw rocks at it - escaped by diving instead.





T. Cade  
1958

Clangula hyemalis

- 18 June - east of Barrow  
On the flight with Maher and  
Shanks, several were seen on  
lakes, but not as common, it seems  
to me, as usual.
- 19 June Barrow - while setting out the  
trap lines we saw only two or  
three pairs.
- 20-22 June Barrow - one pair seen daily on a  
pond just in back of ARL on the  
road out to Franskie's hut.
- 23 June - this duck seems to be down in  
numbers this year - at least relatively -  
it is less common than pintail and  
Steller's. Few scattered pairs seen  
in adjacent ground around Central  
Marsh.
- 5-26 June Coal Mine - Meade River - four pairs  
have been seen on lakes within half  
mile radius of the village - also flying  
along the river. A single drake seen on  
lake 1/4 mi S of ARL near igloo.
- 28 June A male seen on a pond in the marsh  
adjacent to T2.
- 29 June pair seen on a lake across the river from  
the village.
- 30 June - Three pairs seen on separate small lakes  
on our walk down river this afternoon.





T. Cade  
1958

Clangula hyemalis

6 July

Barrow

Several pairs and one group of 5 and one of 3 seen on lakes and ponds in Voth area and around Central Marsh.

7 July

Barrow to South Barrow - 3 -

several seen (see general account),

15-16 July

Uniat - three adults have been seen on Lake Uniat each evening. Uncommon in the area this year - no sculp seen yet.

September

Mead River - Coalmine - several heard along the river between ARL spawigan and the Coalmine.

3 Sept

Mead River - Coalmine - a group of 13 was seen on a small lake 100 x 300 yds near the large lake 1 mi NW of village.

September

Mead River Coalmine - 5, 4 smaller than 5th, were seen swimming in the river just above the village. Later they were seen with 3 pintails on a mud bar 1 mi above the village.





T. Code  
1959

Clangula hyemalis

- 19 June Uniat, Alaska - two pairs seen on lakes of upper terrace north of the airstrip.
- 20 June Uniat - pair on lakes below Red Hill.
- 22 June Uniat - several pairs seen on lakes of the upper terrace.
- 23-28 June Uniat - seen or heard infrequently on lakes of the upper terrace - mostly around Red Hill.





Coele  
1956

Mergus serrator

22 June Uniat, Alaska

A pair was seen on a lake NW of the air-  
strip.

27 June

Two were flying up Sea Bee Cr - at west end  
of airstrip.



T. Cade  
1958

Mergus serrator

- 27 June Coal Mine, Meade River, Alaska  
An adult male was seen flying  
over the river about a mile above  
the Coal Mine.
- 30 June One was seen swimming in the river  
near the old village site of Atharuk -  
adult male.
- September Meade River - see general account of  
this date.





Code  
1954

Circus cyaneus

23 May Pitmegea River - a single adult ♀ was seen flying across river from camp around noon. It made several passes at some long spurs on the bank and then crossed over right in front of me and continued on upstream.

24 May Pitmegea - an adult female was seen flying along the river by the grey falcon cliff. Probably the same bird referred to above.

28 May Pitmegea - an adult ♀ seen flying over the coastal tundra by the old cabin near the mouth of the river in the early evening.

July Cohoille - several remains found at grey falcon avenues but none seen flying anywhere in the region.





T. Code  
1956

Buteo lagopus

11 June Unalakleet, Alaska

About 1600 west of camp near Sea Bee Cr. saw one, ♀ by plumage, sitting on the ground, apparently eating. Presently it was disturbed by 2 wag tails, and it flew off toward the river with a strong tail wind. The wag tails followed it in the air.

12 June

In early afternoon one was seen chasing and stooping at an eagle in the area near the red spot on the side of the hill.

13 June

Three birds seen on the lower river side of Unalakleet Mt. looked like 2 ♀♀ & 1 ♂. They were near a nesting site in '62 and probably 2 of these are nesting there again.





T. Code  
1956

Buteo lagopus

See map for locations of nests  
~~Butter Creek~~

~~Oolum meganik~~  
~~Killik~~

30 June

~~Colville R.~~ ca 10 mi above mouth ~~Estabruk~~  
~~of upper tri lary.~~

Saw one on the bluffs just down from Gyv  
aerie. It stooped at me once when I was on  
a pinnacle but I found no fresh nests, but  
there are 5 old ones in the area.

1 July

A ♀ seen leaving a nest on a high outcrop  
above takes as we passed by. Too far away  
to investigate. - same cliff as above

2 July

Two seen by Abel on a bluff just above pre-  
going aerie #1. No nest seen but probably from  
action of birds.

5 July

Pair on cliff at mouth of ~~Upper tri lary~~ ~~Lower tri lary~~ ~~OK Killik River~~ with  
4 small downy young - found by Abel

6 July

Pair with peregrines on bluff 1 mile below  
gyv aerie #2

Pair about 4 miles below the above pair

Pair with peregrines ca 5 miles above  
Colville

Pair resting on bluff on left side of Colville  
just above ~~Killik~~ <sup>Oolum meganik</sup> - where peregrines nested  
in '52.

7 July

Pair near gyv aerie #3 - above Killik

Pair on night just below camp #5

Pair at old gyv aerie #2 <sup>3 young 2 wks old -</sup> or leaving in nest

Pair at old gyv aerie #3

Pair ca 1/2 mile below near new gyv  
aerie #4.

8 July

Pair with peregrines on the left side.





Code  
1956

Buteo lagopus

8 July

Colville R. - above Umeat.

3 more pairs on right side with peregrines between last locality and Umeat.

30 July

total pairs including Umeat Mt = 16

Pair on Umeat Mt have nest ca 300 yds up river from 1952 site. Nest on a sandstone outcrop ca 100 ft above river & 50 ft from top of a talus slope. Nest 10 ft above foot of outcrop. Two recently fledged young present. Collected all pellets and food items found around nest.

14 August

One seen hunting in the caves of T7





Code  
1957

Buteo lagopus

30 June, Uniat

A pair was seen flying around in the vicinity of last year's nest on Uniat Mt, but this nest was empty now indeed could we find an active nest anywhere along the bluff. The birds soared around up high and did not act in the least agitated by our presence. I think it is safe to say this pair is not breeding this year. Last year they produced 2 fledged young.

1 July

Columbia River - 3 were seen flying at intervals between Uniat and Columbia Bar and 4 in the air along the Oolamagovik - there were all seen from the plane.

None were present at the bluffs by the upper Oolamagovik gey alrie, where they were last year, or at S tan fish Bluff or at the double Knife Ridge Bluff - all of which had nests last year.

7 July

Columbia River - none above Oolamagovik

Nest #1 - lower Killik Bluff - inaccessible stick nest - 200 ft down below top on a shale-muck talus and 100 ft above the river on top of a stack of shale. Both birds present, screaming & diving. I was flushed off nest when we arrived. About 1/4 mi up river from a Puffin alrie with one added egg.

NW  
facing





T. Cade  
1957

Buteo lagopus

8 July Colville River

Nest #2 on first right hand bluff below Killik with gyp falcons ca 1/4 mi away. Nest ca 100 ft above river and 10 ft below brushy turf on a shale wall facing N. 3 young ca. 10 days old - pin feathers on wings showing. No remains of prey at nest.

Nest #3 - on right hand cliff ca 1 mi below double knife edge (1956 gyp cliff) pair nesting in same place as last year. Raining when we arrived and both adults were on the nest. Nest 200 ft above river on a shale outcrop and 10 ft below turf, facing N.E. Contents not checked.

9 July Colville River

Nest #4 - left bank Bluff above Uniat - pair with nest on north slope ca 150 ft above the river above a shale talus; nest on brink of the north. 3 young ca 1 week - no pin feathers showing - facing NW. Remains of 1 ground squirrel at nest. Lots of ground squirrels in the area. - nesting ca 1/4 mi from peregrines.

Nest #5 - cliff on right second above Uniat - female on nest 200 ft from top of out and 100 ft above river. Cliff not climbed. Rough leg was attacked by peregrines. nesting near by.





T. Code  
1957

Buteo lagopus

9 July

Colville River

Nest #6 - on right hand bluff  
first above Christ - 200 yds from gyro-  
plane - nest on talus neck in clump  
of green grass - ca 150 ft below upper  
bank of cut and 100 ft above river. 3  
young ca 1 week old - pin feathers just  
showing. No remains of prey at nest. Only  
adult ♀ seen.





T. Code  
1958

Buteo lagopus

9 July

Uniat, Alaska

Harold Griffin has 3 downy young a little more than 2 weeks old which he took from a nest on Uniat Mountain, 4 days ago. Two appear to be females, and 1

2 July

<sup>a ♂</sup> Colville River - from above Oolamagavik to Killik Bend  
avie #1: pair seen on right limit just above Oolamagavik. Nest on sandstone outcrop, 75 ft from bottom & 75 ft from top. Nest not examined at close quarters but looked into from distance of 60 yds. 3 young which looked to be between 2-3 weeks old.

both  
adults  
light phase

nest about  
200-300  
yds from peneplain

avie #2: pair on left limit just above Oolamagavik - nest 15 ft up on a wall of sandstone - 30 ft below brushy brink. 4 young about 3 weeks old - primaries 6", tail 4". Both adults light phase. Food: following fresh prey in nest - SA ♂ Mo, SA ♂ Mo, Ad ♂ Lem, SA ♂ Lem, Ad ♂ Lem, SA ♂ Lem.

avie #3: first bluff on the right limit below Oolamagavik - pair both light phase.

Nest 150 yds from peneplain. Nest 30 ft up from river on wall of sandstone - 50 ft from talus top. 3 young - 1 flew out, two





T. Code  
1958

Buteo lagopus

22 July

cont

stayed in nest - one of these fully feathered, one with primaries 8" - brood about 5 weeks old. Food: fresh remains included: 1 Ad ♀ Lem (too ripe to get repro. data), 1 Ad ♂ Lem, 1 Ad ♂ Lem, 1 Ad ♂ Lem, 1 SA ♂ Lem, 1 SA ♂ Lem, 1 SA ♂ Lem, 1 SA ♀ Diu (3 emb 1/2 - ca 10mm) 1 SA ♂ Mo, 1 Ad ♂ Mo, 1 Ad ♂ Mo,

avie #4: - left limit below Dolanogovich - just above last year's gyp nest - ca. 300 yds. - Pair light phase birds. Nest on sandstone wall 30 ft from top of bluff and 30 ft above a talus. 200 ft. above the river. One young ca 4 weeks old - primaries 6" - tail 3". Food: fresh remains in nest = 1 Ad ♂ Mo, 1 juv ♂ Mo, 1 juv redpoll. Also there was one addled egg and the uneaten remains of a young roughleg about 2 weeks old when it died.

avie #5: in the stick nest on the pinnacle of rock exactly where gyps nested last year - 50 ft from top, 30 from bottom and 200 above river. One young about 5 weeks old - primaries 8", tail 5". Food: fresh remains = 1 Ad ♀ Lem (lost, 7 emb (3/4) 12mm)

3 July

Cohille River - from Killik Bend to point ca 1 mile below double knife blade bluff.





T. Cade  
1958

Buteo lagopus

23 July cont

Alvie #6: pair of light phase birds on the lower Killik Bluff - Nest 10 ft below brink of alder brush slope, 40-50 ft above top of  $\alpha$  talus and 150 ft above the water. Four young - oldest with primaries 8" & tail 4-5" - youngest with primaries 5" & tail 3". No fresh kills in nest - pellets collected. Nest about 250 yds down river from plover alvie.

- by bluffs on right limit - first below Killik - a single adult was seen but no active nest could be found.

Alvie #7: pair of light phase birds on the double Knife block bluff - Nest on the upriver block - 25 ft down from the drop-off at the end of the ridge, 150 ft sheer drop to the river below. Nest only about 30 yds from plover alvie. Two young about 3 weeks old. No remains of fresh prey in the nests.

- On the series of small outcrops on the right limit below double-Knife, where rough-legs nested in 66 & 37, a single adult ♀ was seen but no active nest present.

24 July

Colville River - from 1 mi below Double K to ca 20 mi above Chukiat.





T. Cade  
1958

Buteo lagopus

24 July

Cont

On the inland outcrop on the right limit where a pair of peregrines was seen, a vireo was heard calling. Nesting there not determined.

25 July

Colville River - 20 mi above Inuit to Inuit  
- No vireo on the last high bluff on the left limit before Inuit, where there were nests in 52, 56 & 57.

- At the second <sup>bluff</sup> above Inuit on the right limit, a single vireo was attacked by a single peregrine but there was no sign of an active nest.

- At the last high bluff on the right limit above Inuit a single adult vireo was seen but no active nest.

alms #8

- At the coal seam bluff a pair of light phase birds was seen and there was a fresh stick nest with droppings around it, but the nest was not checked. Probably active.

Counting the Inuit pair there were 9 pairs on the river this year between Olanogalik and Inuit, with possibly a 10th pair on the inland outcrop. It is interesting, however, that fewer active nests were found





T. Code  
1958

Buteo lagopus

15 July

Cont  
before the Killik than above it and  
that those nests above all had more  
fresh food in the nests than did  
those below. It would appear that  
microtine populations were relatively  
dense in the country above the Killik  
and relatively sparse, as at Uniat, in  
the country below the Killik.

August

Franklin Bluff-Sagavanirktok River

With Kovach, I visited the local pair  
of rough legs, which are nesting on the  
back side of a flat iron ridge about 1/4 mi  
from the camp. Pair of light phase birds.

on N facing  
slope 100 ft up  
in flats

Nest on a talus slope easily walked to.  
One young about 5 weeks old. Longfeather  
feathers seen in the nest. The dried  
remains of a second-chick - young were  
found at the base of the nest. Also ground  
squirrel remains. Large number of pellets  
collected.

September

Uniat, Alaska - one was seen  
soaring over the air strip in the  
late afternoon - ca 100 ft up. It was  
moving slowly toward Red Hill.





T. Cade  
1959

Buteo lagopus

- 20 May Pitmegea River - a very light headed and light-chested ♀ was seen sitting on a rock on the ridge north east of camp across the river.
- 21 May Pitmegea - another ♀ of same description was attacked briefly by a gyrfalcon as she was flying across this ridge towards the mouth of the river.
- 22 May Pitmegea - two birds, a light one, and one darker, flew by camp at 1430, passed the mouth of the river and continued south down the coast.
- 23 May Pitmegea - four birds in ♀ plumage were seen soaring in a strong pair over the upper end of the long ridge at the right limit above camp. One had molted inner primaries (7th?). Three were very light, one was somewhat darker.
- 24 May Pitmegea - one was seen on the high ridge across the river from camp, one was seen at the gyrfalcon cliff, and one was seen over the long ridge across and upriver from camp.





T. Code  
1959

Buteo lagopus

29 May

28 May

June

Cape Thompson - one was seen soaring over the central series of bluffs - high up toward the rim.

Pitmegea - a pair was seen circling and screaming over a steep mud and tules slope inland from the river ca 1 mile along the creek 1 mi above camp. They acted as though located in the area but no nest was evident in any of the likely places. Good steep banks in the area but no rock out crops.

Bird in ♂ plumage screamed.

Peters-Schroeder Lakes - on "Buteo" Cr at a point ca 4 mi NW of Schroeder. -

a pair was perched on the upper stretch of the bluffs where a peregrine nest was located. No nest could be found but the birds were much agitated by our presence, and the ♂ in particular circled several times within 20-30 yds. ♀ was not at cliff when we arrived, and she stayed quite a ways out when she came in. Both birds screamed. About 25 pellets were collected from rocks. They are probably the "eagles" reported by Bill Dahms last year. ♀ had mottled inner primaries <sup>outer secondaries</sup>.





T. Cade  
1959

Buteo lagopus

- 2 July Unist - pair on Unist Mt - has nest down view from site of 1957 - 3 young about 1 week old. No remains of prey at the nest.
- 4 - August Colville - for data on pairs observed from Eter Lake to Ocean Point re: the section headed "Colville Raptor Census."





T. Code  
1956

Aquila chrysaetos

- 11 June Uniat, Alaska  
1700 One was seen soaring about 500 feet high over the barracks etc.
- 12 June. One was chased by a rough-leg near the red spot on the hill. One when the hawk stooped, the eagle flipped up partly as though it started to present its talons.
- 14 June One was chased by a peregrine in the air over Sea Bee Co where it breaks out of foot hills.
- 31 July One seen flying high over Uniat Mt.
- 1 August One seen flying over Uniat. The hawk attracted my attention to it.





T. Code  
1957

## *Aquila chrysaetos*

19 June Uniat - one seen flying along the ridge near the oil derrick going up stream. I noted immature.

3 July Uniat - one seen flying in the vicinity of Red Hill.

8 July - Colville River

at 1330 three adult eagles were seen perched on the left bank of the river near the carcass of a young cow bear that was lying partly submerged in the river.

5 Aug (entry) Jago Lake

Sable said he had seen one or two ca 10-15 miles up river from the lake.

7 August

Jago Lake

One was seen flying over the higher blanches just west of the lake. It landed on a boulder on the second blanch above the lake and sat there for some time, giving an excellent view - adult in appearance.

3 August

Jago Lake

One was seen soaring over Jago Mountain in the early morning, and Andy scared another up with his plane as he flew over the second blanch west of the lake. They have found a nest with one young on the OK pilot.





Code  
1958

Aquila chrysaetos

9 July

Uniat, Alaska - one seen soaring over the river in the general area of the coal seam on the opposite side from Uniat.

25 July

Cohille River - ca 20 mi. above Uniat - a the small cliff on the left limit where the pair of pelagines was seen attacking the goose, a large stick nest was found on an outcrop of sandstone. The nest was attainable from below without a rope. It was at least 1 year - possibly two years - old. Inside the nest there was a lot of caribou hair and fragments of skin, which suggests that the nest had been occupied by eagles. No eagles were seen on the river between Olanagavik and Uniat - perhaps related to the scarcity of ground squirrels and ptarmigan.

August

Okpilak Lake - one seen soaring over the high bluffs on the right limit of the river about 2 mi. above camp.

August

Okpilak River - scattered remains of one - possibly two - eagles found in the flood plain near mouth of Contut Creek. Several wolf scats found in the area all contained caribou hair - but the scattering of the remains suggests that





T. Code  
1958

~~Aquila chrysaetos~~  
Aquila chrysaetos

7 August - cont.

the bird had been eaten by some mammal. Probably the eagle was found dead. John Carleton reported finding a dead eagle last year - perhaps the same one. He thought it had starved to death.

18 August Okpilak - Jogo Rivers

Just after taking off from Okpilak Lake an immature eagle flew under the prop plane - ca 2 mi below Okpilak Lake.

Later on the Jogo, at 1845 one was seen flying along the river valley just above camp. It was called to my attention, when my eyes falcon suddenly fixed her gaze in the distance and "tremmed down" her plumage while she was in the process of eating.

September

Mead River. Mel Salomon's uncle, David, said that yesterday he saw an eagle feeding at a Caribou carcass which he had shot on the Milaktoch River. He said it was so full, it could hardly fly off the ground.





T. Code  
1969

Aquila chrysaetos

- 12 June Peters-Schwader L. - one - immature  
by plumage - was seen flying slowly  
over the high pass on the west side of  
Peters. I & drifted over the ridge of  
Marry Range to the south.
- 5 July Cohille below Etivluk - immature eagle  
was chased a rough leg near latter's  
nesting site.
- 9 July Cohille above Anuvua - eagle  
was chased by ♀ peregrine inland  
and downriver into gyrfalcon territory;  
then gyr took over and stooped  
repeatedly at the eagle.
- 16 July Cohille - at Killik Bend - eagle was  
attacked by pair of rough legs and then,  
as it moved downriver, by a pair of  
peregrines.
- 31 July Cohille below Sentinel Hill - eagle  
seen flying over a bar in midriver.  
A glaucous gull stooped at it several  
times.
- 2 August Cohille - beyond Ocean Point - eagle  
was attacked by pair of parasitic  
jaegers.



T. Cade  
1956

Falco columbarius

11 August. Unalakleet, Alaska

One was seen flying in the area of T1. As it flew up the hill toward T2, it suddenly moved to one side and struck into a flock of redpolls. It caught one near or on the ground, and started depinning it on the spot. I tried to get in for a shot, but it was shy, and flew off carrying it properly before I was within 50 yds. It was an adult.





Cade  
1956

Falco rusticolus

~~Habitat~~ Oolamnegunik R.

~~Eastern Creek~~  
Upper Tri lagoon  
~~to the west~~

30 June

Columbille R., ca 5 mi above mouth

Flushed a smallish dark grey falcon from the bluff on night side of river.  
~~where I received peregrine falcon in '52.~~ Collected a number of pellets. Looked for acie but saw none at that time. Later as we were setting up camp a white-headed, white-necked, liveant as travel appeared, and soon after I saw a downy young on a ledge of the cliff.

Cliff is sandstone and was ca 60 ft high on a slight talus overgrown with brush. Acie is near the top and faces NW. ~~about exact spot where peregrines nested in '52.~~

Falcon is in molt - inner primaries gone.

1 July

Climbed down to the acie. It consists of a shelf ca 24" wide by 18" deep - on a straight wall of sandstone - covered with red & green crevate lichens - about 20 ft from top & 40 ft from bottom. There were 3 eggs about 2 weeks old - pin feathers on tail & wings about 1 inch out. Two were large - one perhaps not a falcon - and one much smaller but not much younger - perhaps 2 days. There were no marks of 2 large pews in nest - nothing identifiable. Took some pellets. The 2 large eggs were taken. The travel at this acie is the highest I've seen yet in Alaska. The pellets about various perches contained mostly ptarmigan feathers in winter plumage.

I must say the cliffs look exceptional.





2

Falco rusticolus

6 July

Colanmegoruk  
Killick River, ca <sup>5</sup> miles below mouth of <sup>lower</sup> ~~Chuk~~-  
~~trillem~~ <sup>trillem</sup> ~~river~~ R. - at hill of 9 faces - wind worked  
sandstone and conglomerate protrusions jutting  
up on the ridge of a hill. An aerie was  
located on one of the conglomerate "heads"  
about 200 ft up a slope above the river.  
The rock was ca 40 ft high. Aerie was  
located ca 10 ft from top & 30 ft from bottom  
in a wind-blown pocket. There were three  
well-feathered eagles ca 6 weeks old - all  
apparently trivial. We took the two largest  
ones. The aerie faced ca SW. Another "head"  
had apparently been used the year before, as  
there were many old pellets & skeletons under  
it. Most of this material was ptarmigan.  
Under the present aerie found a dried up  
caveau - almost untouched - of Lagopus mutus.  
A few passerine remains were found and  
some vulture feathers, which may not have  
been a kill. Saw only the trivial at a  
good distance away - flying. Focused this  
aerie just by "in sight" - the situation  
looked right, and there it was <sup>above</sup>.  
Colville River, ca 2 miles ~~below~~ <sup>above</sup> mouth of  
Killick - aerie found on right side on a  
high, long bluff of shale and rock. The  
aerie was located about 120 ft from bottom  
of cliff and 20 ft from top, in a cleft of the





Falco vesticulus

6 July

rocks under a slight overhang <sup>in old stick nest.</sup> There were two eggs about 5 weeks old - both same size - either large jerkies or small falcons. I took one. No remains of prey, and young appeared not to have been very well fed. The one I took was very poor & light for its size. Mew did see the adults at this alcove - spotted the young from the river. I may have missed this alcove in '62, as it is not in a conspicuous place.

7 July

No gyps at 1962 alcove #2. Much of the cliff where the nest was in 1962 has fallen away and the whole appearance of the cliff face has changed a good deal.

No gyps at 1962 alcove #3 at the bluff with the double ridge. The ledge where the alcove was in '62 had fresh droppings on it but no birds.

Colville River ca 1 1/2 mile below above locality - alcove on right side on a small shale outcrop only 20 ft high up on a brush covered slope ca 100 ft above river. Alcove a large ledge 10 ft long 2 ft wide about 5 feet up from bottom of outcrop. Facing North. One of a series of outcrops up river from a sizable bluff on which rough legs were nesting. Many ptarmigan remains about the alcove. Both adults were





T. Cade  
1956

Falco nesticus

7 July

present in the area, and as we were taking the young - two large falcons ca 5 weeks old - the trierel actually swooped by 50-60 yds out and screamed. Falcon was a dark grey bird with blue tail - Norwegian type but the trierel was very light - almost a white bird. Breast and under white with a few large scattered dark streaks. Head a chalky grey and dorsum appeared almost chalky pink - probably a light tan. The lightest bird yet. Strange that it is the trierels which are always the light birds up here. Same in '62.





T. Code  
1957

Falco rusticolus

1 July

Colville River

No evidence of gyrs was found on the ground at the upper aerie on the Olanuagavik. There were some fairly recent droppings and some remains of waterfowl and shore birds - no fresh ptarmigan remains. Last year's nest contained a dead young still in the down - the little one we left there last year.

No evidence of gyrs was found from the air, we circled over it twice and I could see into all the pot holes, of an active aerie at the Hill of Nine Heads.

No evidence of gyrs was found on the ground at ~~Starfish~~ <sup>Hill of Nine Heads</sup> Bluff or the Double Knife Ridge Bluff - from the air no evidence was obtained for the other two sites on the Colville where they have nested in the past.

7 July

Colville River

Aerie #1 - at 1720 spotted very light breasted ♀ flying over the first high-cliff on left side of river below mouth of Olanuagavik. ♀ with light gray back and dark cheeks - almost white below. ♂ not seen. Nest in old stick nest of ravens or rough leg hawk situated on a ledge of a sandstone pinnacle 150 ft up from





T. Code  
1957

Falco rusticolus

7 July

Colville R

the river at top of a talus slope. Perched itself ca 40 feet high and nest ledge 30 ft down from top and facing S.W. Ca 1/4 mile from pair of Pterogines located on same series of outcrops. Nest contained one juv ♂ about 6-7 weeks old and another ♂ dead in the nest and partly eaten by the other. Appeared to be dead about 1 week. Remains of ca 6 ptarmigan in nest and indeterminate number of passerines - large fawns mostly. A young bird was taken.

While I was at the pterogine series later on, the ♀ gyf, which did not leave the cliff as they usually do when disturbed but stayed within 1/4 mile, and the ♀ pterogine met in the air over the river to do battle. Apparently in disturbing the pterogines I caused them to fly too close in to the gyf's nest. I could hear her clucking very coarsely and deeply as she came in from the far side of her area. The ♀ Pterogine coiled to climb but the gyf came straight in to her and overhauled the pterogine with the greatest of ease. The pterogine of course easily avoided





Cole  
1957

Falco rusticolus

7 July - Colville R.

the gyp's feet. They both stopped at each other many times, each circling away towards her own nest after an encounter. It was beautiful to watch. There was no question that the gyp was faster than the peregrine and fairly dominated the situation, although the peregrine did not retreat. Once they passed to each other feet locked together in the spool type fashion of fighting raptors, and they fell ca 60-70 feet through the air before breaking loose. The gyp was on top and apparently she held the peregrine. After about 30 min. they quieted down and each bird went back into her own area. This is the first chance I have had to see an encounter between these two species near a gyp's nest, and the difference in behavior of the gyp at her own nest is striking. When really pressed there can be no doubt that the gyp is the superior bird. In this I must now capitulate to Stevens and Melton, both of whom base their views on observation of trained birds.





Code  
1957

Falco vesticolus

8 July

Cohville River

Devic #2 - on first night hard bluff below mouth of Killik R. - ♀ exactly like one seen yesterday but perhaps larger was seen over the cliff at 1055. Bluff is off the main course of the river with a "slough" passing back from the river beneath the bluff. Devic situated on up river end of the series of shale outcrops ca 1/4-1/2 mi. from join of Rough leg on the lower end. Nest on a recessed ledge with a large cracked opening leading into the bluff. Very wet and muddy inside. Two female juvs ca 6-6 weeks old - very muddy on backs and with blood smeared all over heads. Looking at them through binoculars at a distance they looked red-headed. Both juvenes grey plumage with bluish heads. Both apparently starved - no recent remains of prey in nest, although when we first arrived we saw the ♀ take a small bird - large sparrow? - to the shelf and give it to the young. She then left the area and did not return. ♂ not seen. The young fed out of my hand while I was in the nest.





Code  
1957

Falco rusticolus

8 July

Colville R.

They were quite bold and not at all afraid. Both had droopy eye lids as though they were sick or suffering from some deficiency disease. I took the largest of the two. In the nest were remain - wings ~~and~~ attached to sterna of 17 ptarmigan - all bleached and clean except for meta carpals. One unidentified duck also. I was around nest about 15 min. when we first arrived - a little shy about leaving her prey with us around.

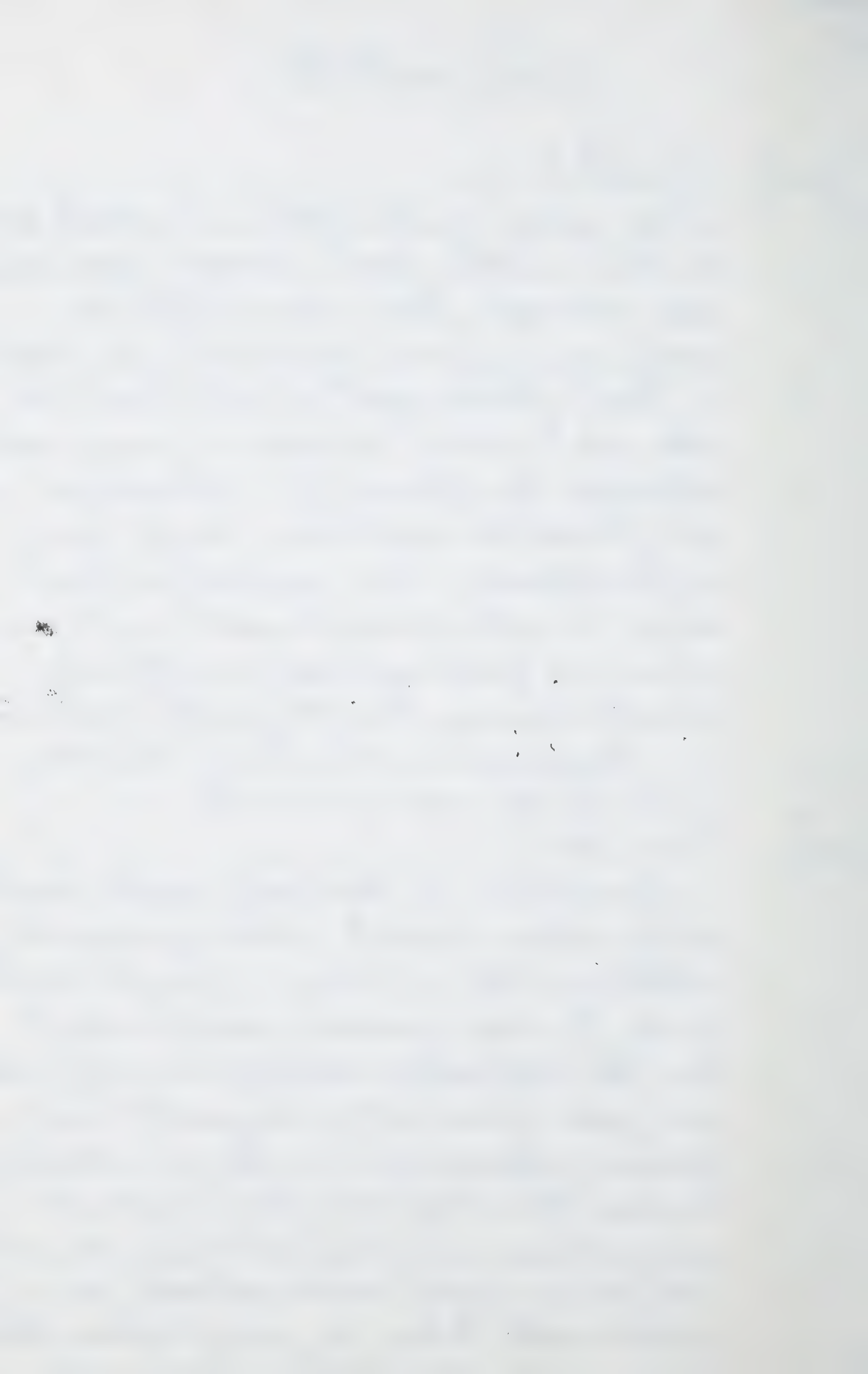
No eggs seen at either of the 1952 sites or the new 1956 site.

9 July

Colville R.

Denic #3 at the last night have cliff above Uniat, where peregrines nested in 1952 & 1956, a large dark gray I was found with a nest on the up stream side of the cliff ca 200 yds. from rough leg nest. This falcon remained in the air cackling around the nest all the time we were there but did not dive on us. Nest on a small shale outcrop on a shale-muck talus ca 100 ft above the river and 150 feet below the upper





Code  
1957

Falco nesticolus

9 July

Colville R.

temp. Outcrop itself ca 15 feet high and  
nest ca 10 feet down on a ledge. One  
young ca 2<sup>3</sup> weeks old. Nest itself not  
investigated - observed from 30 yds. Prey  
remains could not be seen. Adult ♂  
not seen.

15 July

Point Lery

By the shore at the lake back of the  
rite a brownish grey gey was seen  
flying low over the tundra. It was  
being chased by a long-tailed jaeger.  
Both birds disappeared over the horizon  
to the SW.

27 July

Pitt Point

In the afternoon, when I flushed  
the second brood of ptarmigan just S of  
the rite, a gey flew up from the bank  
of the drained lake and pursued one  
of the adults towards the ~~right~~ rite,  
but soon gave up and turned back,  
flying low over the tundra. It came  
past me within 50 yds. It landed on  
a bank 200 yds away, was harassed  
there by several jaegers, and then flew  
south out of sight along the river. It  
appeared to be a ♂ and was molting out  
of very worn juv. plumage into 1st adult stage.





T. Code  
1957

*Falco vesticolus*

29 July Pitt Point

At the break in the dike at south end of the drained lake, found some molted gyrf feathers and a few castings - in the area where fox roasts were deposited. 1 casting = 1 leg, 1 longspur, 1 red phalarope, 1 casting = longspur

Aug (entry) Kuparuk River - at White Hills

Kovanda et al. found an alcove here and took still and moving pictures of the birds. There were 4 well-advanced young in the nest. (Quite a few ptarmigan in this area)

Jogo River, ca 12 mi. below Jogo Lake

←  
flew to  
palegreen

Cantlon and Billis found an alcove in this locality on <sup>31 July</sup> August. It held a single - well-advanced fledgling. They got photos of the young bird and cliff.

←  
August

Jogo Lake

A juvenile ♀ was attracted to camp by my trained tiercel, Jogo, and I shot her as she flew over.

+ August

Jogo Lake

A dark juvenile male flew over camp around 1000. At first thought it was Jogo, who was out, but this bird was darker and I could see it had no flecks.





T. Code  
1957

*Falco rusticolus*

24 August Jogo Lake

A wild female - probably a juve -  
mile as no molted flight feathers  
were evident - encountered my trained  
falcon on "Lookout" Knoll  $\frac{1}{4}$  mile up  
river from camp, and she apparently  
had him pinned down on the ground.  
I could not see too well, but he was  
screaming and they were both running  
around on the ground and there was  
much flapping of wings. She was  
reluctant to leave when I intervened,  
and she roared around me by giving  
an excellent view. Very dark bird  
dorsally and ventrally - almost black -  
no light flecks or edgings in feathers at  
all.

25 August Pitmegea River (entry from Childs)

About 2 mi above the camp  
there was a pair on a bluff. There  
was 1 young. It and an adult were  
collected by Childs.





T. Cade  
1957

Falco rusticolus - temp. data

21 July

Barrow

Conditions: juv. ♂ hooded and sitting on gloved fist. Full crop of food. In dimly lighted room - no air movement and ambient temp 6" out around bird =  $8.8-9.2^{\circ}\text{C}$ . Air temp. gradually increased above  $9^{\circ}\text{C}$  as moved toward bird from ca 3" out.

Measurements

temp  $^{\circ}\text{C}$

- |     |                                       |                 |
|-----|---------------------------------------|-----------------|
| 1.  | Surface breast feathers below crop    | 16 $^{\circ}$   |
| 2.  | Against skin at same site             | 32.5 $^{\circ}$ |
| 3.  | Surface feathers at foot level        | 23 $^{\circ}$   |
| 4.  | Against belly skin same site          | 34 $^{\circ}$   |
| 5.  | Dorsal surface middle toe             | 32 $^{\circ}$   |
| 6.  | Surface of eye between nostrils       | 29 $^{\circ}$   |
| 7.  | Between thigh and body - ca 4" in     | 40.5 $^{\circ}$ |
| 8.  | Against skin at throat above crop     | 30.2 $^{\circ}$ |
| 9.  | Against skin at back of neck          | 36 $^{\circ}$   |
| 10. | Surface of back of neck feathers      | 23.5            |
| 11. | Between body & wing at shoulder level | 40.5            |
| 12. | Between " " " mid back level          | 34.8            |
| 13. | Surface of feathers at mid back       | 14.0 $^{\circ}$ |

Outricle with light breeze and temp at surface of belly feathers =  $2-3^{\circ}\text{C}$

- |    |                                     |                 |
|----|-------------------------------------|-----------------|
| 1. | Against skin of belly at foot level | 28.5 $^{\circ}$ |
| 2. | Between thigh & body 4" in          | 40.5 $^{\circ}$ |

Bird was panting lightly & in turn 'thrusty' throughout





T. Code  
1957

# Falco rusticolus - temp data

22 July

Barro

In the lab - air temp =  $21.3^{\circ}\text{C}$  Start at 2035.

time	Measurement	Temp.	Feather depth
<del>2100</del> 2111	Feather surface at throat	25.4	
2111	skin at throat	34.4	20 mm
2100	Feather surface below crop	24.8°	-
"	SKin below crop	34.2°	17 mm
2106	Feather surface at belly (foot level)	24.2	
"	SKin of belly	36.8°	50 mm
2114	Between thigh & body	40.8°	55 mm
2115	Between wing & body (sh)	40.4°	
2118	Feather surface back of neck	24.2°	
2118	SKin at back of neck	36.2°	30 mm
2120	Feather surface mid respiration	25.2°	
2120	SKin of mid respiration	36.4°	10 mm
2128	Feather surface of rump	24.5°	
2128	SKin of rump	34.8°	15 mm
2117	dorsal surface mid toe	32.6	
2130	air = $21.3^{\circ}$ - bird panted throughout experiment - getting heavier toward end.		

24 July

Barro

♀ hooded in lab - air temp =  $19.6^{\circ}\text{C}$   
time 1100. Temperatures of belly area:  
surface =  $21.0^{\circ}$ , 10 mm deep =  $25^{\circ}$ , 20 mm deep =  $28^{\circ}$ , 40 mm deep at skin surface =  $37.0^{\circ}\text{C}$ . Temp between thigh & body =  $40.6^{\circ}\text{C}$ , 55 mm deep.





T. Cable  
1937

*Falco rusticolus* - notes on captives

23 July Barrow, Alaska

Juvenile, fledgling ♂ taken on Colville River on 7 July at an estimated age of 6-7 weeks. At this date the bird weighs about 40 ounces and its feathers seem to have reached full growth only the shafts of the flight feathers remaining to "harden up." At this age it would doubtless be fledged in the wild. When taken into a wind, he flaps his wings vigorously while holding onto my fist tightly with his feet.

For the past 5 days I have been requiring him to step up on the glove for his meals and he is now fed entirely on the fist. He is a "skiddish" bird compared to ♀, but readily learned to mount the fist for meals. He does this eagerly and without hesitation now. For several days both he and ♀ have been introduced to hood by having it slowly brought up from foot and by a person standing directly opposite their faces. This has been done after feeding. Two days ago the hood was just placed on his head and a sitting was made. There was not much of a





T. Code  
1958

Falco vesticolor

24 July

Colville River - ca 20 mi. above Chinit

While we were at a penguin  
cove - on the ~~left~~<sup>right</sup> limit, below the  
double-knife blade bluff - a large  
bluish gray falcon - larger than the ♀  
penguin - which I thought must be  
a ♂ gyrfalcon - flew into the area from  
down river - apparently attracted by  
the diving and screaming of the  
penguins. At once it attacked the  
♀ penguin and buried its beak in her legs.  
They fell fluttering through the air  
for several yards before breaking  
loose. This did not deter the penguins,  
however, which in turn began stooping  
at the gyrfalcon. I took a long shot at  
the gyrfalcon but missed. However, this  
caused it to fly off down river  
with the twisted in hot pursuit. The  
falcon stayed with us for about 2  
minutes the twisted returned.

This was the only gyrfalcon seen  
on the trip between Colmanogayuk  
and Chinit - a stretch where a total  
of 6 nesting sites is known. The correla-  
tion between nesting of gyrfalcons and numbers  
of ptarmigan is, therefore, perfectly  
confirmed by this year's situation.





T. Code  
1958

Falco rusticolus

3 August Okpilak Lake

At 0955 I looked up from camp toward the high outcrop of rugged quartzite about  $\frac{1}{4}$  mile south of the lake just in time to see a very light colored gyrfalcon fly off one of the pinnacles and work its way along the wall of the valley toward camp. It alighted on an outcrop about 200 yds away, and I watched it thru 7x50 binocs for several minutes. From that distance the bird appeared quite white but with definite dark markings on the feathers. Later, however, I found a molted tail feather, and it is a light whitish gray - not the pure white of the Candicans type.

At 1630 this bird, now recognized as a juvenile by its size, was seen flying around in the same area as this morning. It was being followed closely in the air by a food begging juvenile much larger than it and of the dark gray shade. Then a large adult ♀ of the blue-gray type flew out from a high pinnacle and circled over the valley uttering hoarse, dog-like cacks. A little later in the day Bill Makom saw the light juvenile carrying something in its talons.





T. Code  
1958

Falco rusticolus

3 August

- cont

food

The juvenile was following. It flew in close and took the prey in its feet from the parent bird, but as the transfer was being effected, the juvenile dropped the prey. Malcolm examined it and found the back and hindquarters of a ground squirrel. Later in the day he saw vireos eating this piece of squirrel. Apparently the gyros nested somewhere on the fogged outcrops of quartzite just north of the lake on the right limit of the view. The juvenile - a ♀, apparently has just fledged.

4-8 August

- The falcons have been seen or heard on each of these days. The juvenile now ranges about a mile out from the cliff and was even heard screaming across the river on the 8th.

7 August

Okepiak Lake - one or more seen or heard on the hill nearly every day during this period. The light ternelf flew over the tuts on 17th to make a pass at my lesser penguins.

22 August

Jago Lake - while my lesser penguin was flying to the lake, stooping back and forth, about 1800, a large, dark gray juvenile gyrfalcon suddenly appeared in the air above her. It





T. Code  
1958

Falco rusticolus

3 August - cont

food

The juvenile was following. It flew in close and took the prey in its feet from the parent bird, just as the transfer was being effected, the juvenile chopped the prey. Malcolm examined it and found the back and hindquarters of a ground squirrel. Later in the day he saw vireos eating this piece of squirrel. Apparently the gyros nested somewhere on the jagged outcrops of quartzite just north of the lake on the right limit of the view. The juvenile - a ♀, apparently has just fledged.

4-8 August - The falcons have been seen or heard on each of these days. The juvenile now ranges about a mile out from the cliff and was even heard screaming across the river on the 8th.

7 August Okpilak Lake - one or more seen or heard on the hill nearly every day during this period. The light terns flew over the tuts on 17th to make a pass at my lesser plover.

22 August Jago Lake - while my lesser plover was flying to the lake, stooping back and forth, about 1800, a large, dark gray juvenile gyrfalcon suddenly appeared in the air above her. It





T. Cade  
1958

Falco rusticolus

22 August - cont -

hovered over her and me for several seconds and then flew to a nearby hillcock to sit. It came back over us several times - quite bold and showing no fear. She was obviously attracted by the <sup>hunting</sup> actions of my falcon and possibly also by the swinging lure. She finally flew off and perched about a quarter mile away. Later while my eyes was tethered to her perch in front of the Jamesway, the gyf stooped over her once very close. She came in for a second stoop and I shot at her but missed. She then flew off and perched on a moraine across the lake.

September Meade River Coalmine - a juvenile eagle was seen at 1045 flying around the air strip and over the millage. It was accompanied by a milling flock of about 30 redpolls which kept circling about above the falcon. Whenever he tried to rise above them they immediately flitted up higher. He kept on clanking wings and out of sight. He came within 20 yds of the wannigan once - close enough to see the gray colored feet and claws.

September Meade R. - juv ♂ seen again at 1045 around ARL wannigan - redpolls again flocking around him.





T. Cade  
1958

Falco rusticolus

September Unalakleet, Alaska

A very large (?) dark individual—juvenile?—flew around the radio shack and out over the air field in the late morning. It appeared to be hunting and showed some interest in the movements of the dogs around camp. It came in close—ca 30 yds—to the radio hut several times and once started to land on a nearby pole. It finally flew off vigorously toward Chukiat Mountain—alternately flapping and soaring like a buteo.





T. Cade  
1959

Falco rusticolus

21 May

Pitmelea - one was seen to appear in the air on north side of the river, and make a pass at a rough-legged hawk, which remained. The hawk continued toward the mouth of the river, but the falcon veered off and made a very diagonal swoop below the crown of the horizon in the direction of the cliff where Childs found goshawks building in '57 & '58. Size of the falcon relative to ♀ rough-leg indicates it was a ♂ - dark gray in color.

Later at a point up river, a falcon was seen at a distance as it swooped far over the divide at a rather short-circuit curl. The curl flipped up and struck just its feet as the falcon made its pass.

23 May

Pitmelea - visited the area 2 miles up river on the right limit. ♂ is very light bird - white on throat and upper breast, light gray on rest of venter - very slight gray crown - somewhat darker. back on rest of dorsal aspect - wings darker.







T. Code  
1959

Falco rusticolus

23 May cont.

♀ a heavily barred bird on  
venter - much darker than ♂ -  
generally slate gray all over  
with dark bars and conspicuous  
facial streaks. The ♂ was sitting  
on base of the cliff down stream  
from here as we approached. He  
flew off and kept charging in  
the air ca 300 yds out from  
base of cliff. ♀ did not flush off  
nest until I threw rope over the  
cliff. Nest situated on ledge under  
overhang with surface of 2x4 feet,  
sloping rather steeply down river,  
but there is an old stick nest  
at the lower end of the ledge which  
acts as a block that would keep  
eggs or young from falling out.  
Ledge is 5 ft below brink of  
cliff and 40 ft above river on  
a sheer precipice of sandstone  
facing southeast. 3 eggs in  
middle of ledge held 4 eggs, one  
much darker in color than other  
three.

see rubre-  
giant above.

Took one egg for albumin  
sample but it proved to be





T. Code  
1959

Falco vesticolus

23 May

Cont  
added with a rotten embryo  
about 5-7 mm long - conspicuous  
eye pigmented spot.

A few pellets on the nesting ledge  
were collected.

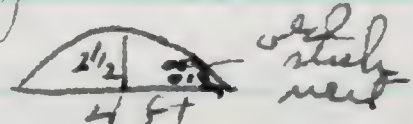
Neither bird uttered a sound  
the entire time we were at the  
den.

24 May

Pitmegea - returned to the den  
and took the other three eggs.  
All proved to be rotten and  
very little advanced in development.

While I was at the den, the  
bird whined once and stooped  
past the cliff twice. He also  
attacked a group of 4 mew gulls  
several times, stooping in among  
them but not laying a foot on  
any. The gulls squeaked a lot but  
made no attempts to escape, except  
to dodge the closest passes.

The nest ledge can better be  
described as a shallow semi circle  
in surface area -  $2\frac{1}{2}$  feet wide  
at the widest part of the arc in the  
center with a diameter against the  
back of the cliff of about 4 ft







T. Cade  
1959

## Falco vesticolus

26 May cont.

I picked up 120 odd pellets around the alvie. Most of these are from last year's feeding. Microtunes appear to occur frequently.

While I was at the cliff a rough-legged hawk and a marsh wren flew over, but neither was attacked by the falcons.

The trevise is definitely the more bold and aggressive bird at this alvie.

The falcon did not leave the eggs this time until I was actually down on the rope and looking into the ledge. But once away, she stayed farther away than did the trevise.

Fresh wing of L. natus, and old wing of C. pygmaea found at a plucking station near the alvie. Colville R. - for data on pairs seen from Etz, look to print below Uniat. See section headed "Colville Raptor Census".

July-Aug.





T. Code  
1956

Falco peregrinus

13 June Unist, Alaska

A ♀ was first seen stooping low over Unist Lake at a tern. She missed. I followed her as she went up and circled out over the river. There she was met by a tern. They went up to ca 1000 feet, and then I saw the tern stoop in a shallow dive at some shore-bird (pectoral ruff. size). The prey was very maneuverable and evaded several stoops. The falcon entered in, and they stooped in steep dives from different directions but the prey eluded them, and they gave up. Presently they came back over the hill near the oil well, and the falcon alighted on a small outcrop west of the well. The tern continued to fly around above her. A falcon was seen on this outcrop later in the evening too ca 1800. May be an accie.

A pair was seen in the same vicinity as the vauquels on the east side of Unist Mt. The ♀ cocked and stayed close to a reddish outcrop mid way between summit of Unist Mt. and the east end of the line of bluffs. Probably an accie there. The vauquely nest in '62 was close to the east end. A pair of peregrines was seen in exact same spot in '62 - probably the site where Bee took his eggs.

14 June One chased an eagle W. of the outcrop near the well.





T. Cade  
1954

2

Falco peregrinus

18 June Unist, Alaska

I went around up by the sandstone outcrops by the oil well, where peregrines were a few days ago. It was very quiet and no birds in evidence. I fired at 22 shot up across face of west side by looking west. After several records, the falcon flew silently out from another ledge closer to the well, and perched in a large willow tree near by on the slope. I walked up and examined all the likely places but could find no eggs. The falcon allowed me to get within 50 yds before she flew off to another perch. She was no less than to leave the area, but did not give or scream at me. The hawk was not around.

19 June 1100 - Falcon seen perched in the willow tree again.

28 June Checked this whole area very thoroughly few in air. Found none, indeed, did not even see the falcon this time.





Falco peregrinus

<sup>upper tertiary</sup>  
~~Carter Co~~

on Hillik Oolannogait

2 July

Ca 2 mi below ~~Ipswich~~ on Colville

A dark old falcon flushed off a nest on a bluff ca 200 ft high - shale. Nest located right at top at edge of turf - scrape in dirt. 2 eggs. Falcon very eager to sit.

avie #1

for obvious reasons!

Avie faces N. T. river run by Web. No remains of prey found. No nest recorded for here in '52 but falcon very quiet.

4 July

A pair seen on a sandstone talus & outcrop about 3 mi above camp #4 on left side of river. Avie not located but may have been in an old vough leg nest midway up on top of a column of sandstone. Falcon very dark & heavily barred ventrally. Saw trierel fly in with a small bird in his beak. Falcon cocked, flew out to him & under, flipped over and took the bird from him, in her beak. Have never seen this method of transfer before. She flew over the vough leg nest, started to land, then soared up & around several times and out of sight. Trierel landed on the cliff.

avie #2

July - pair in above ~~R. river~~ also near trierel

5 July #3

Pair seen with vough legs on a sandstone bluff on right side of river just below mouth of <sup>lower tertiary</sup> ~~St. John~~ R. Bluff about 100 ft high.

#4

Pair with vough legs on a bluff right side of river ca 1 mile below gyp avie on hill of 9 faces.

#5

Pair with vough legs on bluff right side of river about 5 miles above Colville. Have the peregrine







Cade  
1956

Falco peregrinus

6 July

trirel was stooping repeatedly at one of the rough legs. He hit it several times despite its attempts to avoid the strike by flipping up on its back. The rough leg finally took shelter in some brush at the brink of the cliff.

#6

A lone pair on the right of the Colville on the first bluff below mouth of ~~Killik~~ <sup>Oolamnegomuk</sup>.

#7

A pair was nesting on the same bluff as gyf aerie #3, with rough legs in between. The three nests were situated within a linear distance of less than 1 mile. Closest nesting of gyfs and peregrines I've seen. Rough leg in between may act as a buffer. Pair were located about 200 yds up from where the 2nd gyf aerie of 1952 was located (the one in stick nest). Rough legs also nesting near this site but no gyfs seen.

7 July #8

Pair located about 300 yds above the cliff with the double ridge (3rd gyf aerie, 1952). Rough legs right above old gyf site. No gyfs around the cliff.

8 July #9

#10

Pair on right about 1 mile below gyf aerie #4. Seen attacking rough leg.

#11

Pair on the big bluff on the left side - last left side bluff before Christ Mt - with rough legs. Same as #2.

#12

Pair with rough legs on the big bluff ca 10 miles above Christ on right.





T. Cade  
1956

Falco peregrinus

8 July #13 Pair with rough legs on sight on bluff just above Anicut - same as '62

#14? One seen - falcon - with rough legs on the outcrops on sight ca 1 mi below the bluff mentioned above. Same as '62 - probably on aerie here too.

30 July

Total pairs including Anicut Mt = 14 or 15.  
- Pair on Anicut Mt have their aerie down river from the 1962 site - it is ~~below~~ down river from rough leg nest ca 200 yds. Situated under a low outcrop of rock (ca 4 ft high) on a grassy little flat spot of the talus. Their site located between the upper outcrop of sandstone ca 50 ft high and the lower ca 100 ft high. One yearling tiercel ca 2 weeks old. Adult tiercel a small light breasted bird. Falcon large with heavily barred dark breast.

catching fish

Saw the tiercel stoop out over the river and come low over the water. A fish - probably grayling - was jumping at surface. Falcon made two quick passes and on second caught fish in talons as it jumped out of water! Never heard of peregrine catching fish. No fish remains at aerie - only feathers of passerines.

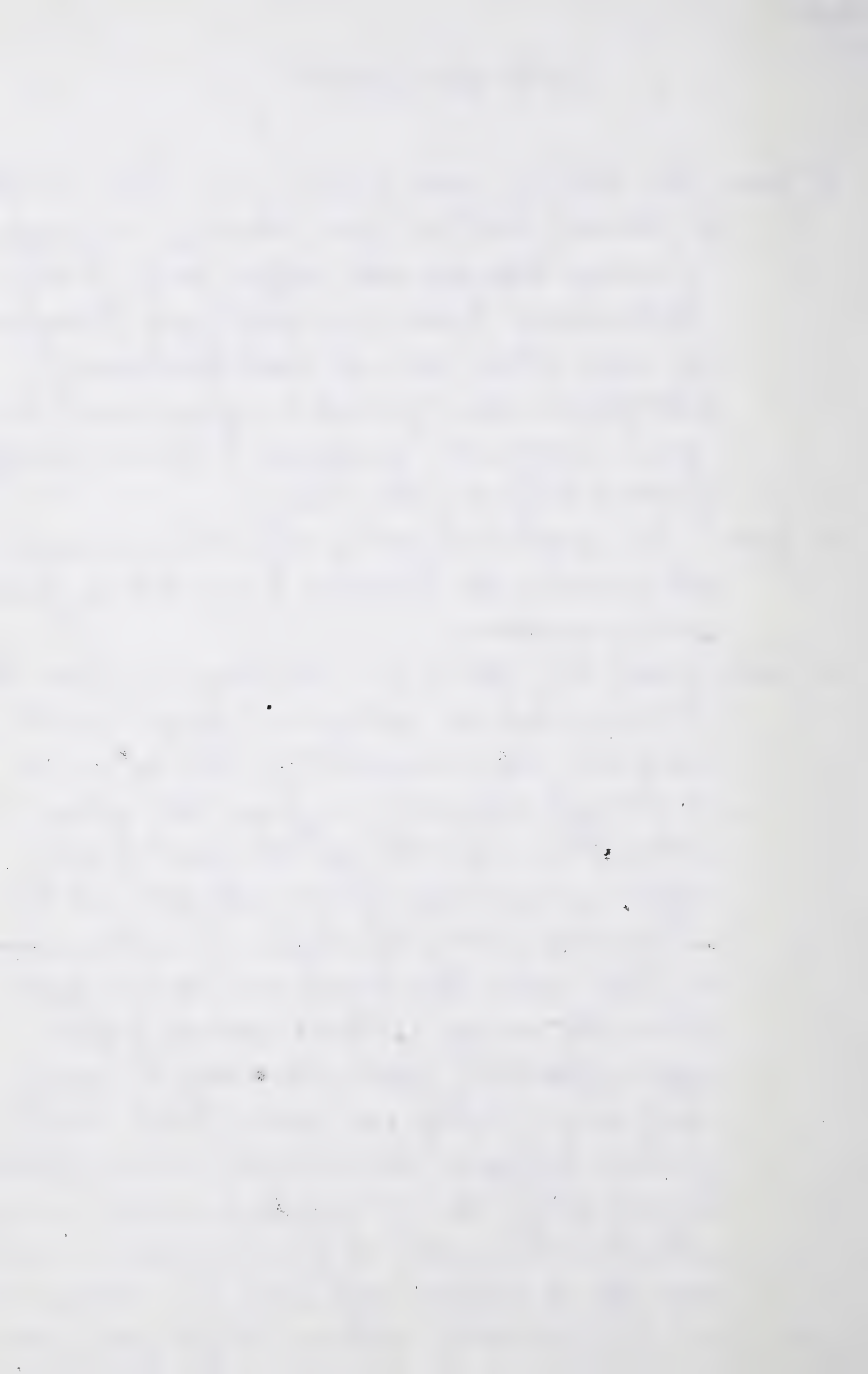




T. Code  
1957

Falco peregrinus

- 8 June In talking with USGS man - Ed Sable, I learned that in 1949 he saw 12 pairs of rough legs on the upper half of the Kuskokwim River, inland from Beaufort. He said there were at least that many Peregrines also - perhaps a few more. No gyres were seen. He seemed to know the difference between the two.
- 10 June - An excellent breeding cliff was seen near the mouth of the Pitmegea River but no falcons were in evidence.
- 30 June, Unist Mt. - pair in evidence - appear to be same two as last year (large, dark ♀ - largeish - long-winged ♂). The alcove is ca 100 yds down river from last year's site. It is situated at the foot of the upper vein of sandstone outcrops, at the entrance with the talus. It is thus about 30 feet below the brink and ca 200 feet above the river. There was a single egg - apparently well-advanced toward hatching. While we were there both falcons attacked the group of ravens present on the bluff ca 150 yds up river. Several attacks were made at flying ravens, and once the ♀ clipped the wing of a raven as it flipped over. Also one of the young ravens was reluctant to fly from the cliff, and the





T. Code  
1937

Falco peregrinus

30 June - Chuiat

♀ falcon once flew in very close along the face of the cliff and struck this vulture as it was sitting, knocking it a couple of feet. The vulture "froze" in some brush after this attack.

Also while we were there, a stray Peregrine - ♂ I think - came over while the residents were engaged with the vultures. The resident ♂ immediately went in pursuit and grappled the other's feet at least once, causing it to scream. He chased it down river ca 1/2 mile before turning back. The intruder went on down river.

1 July

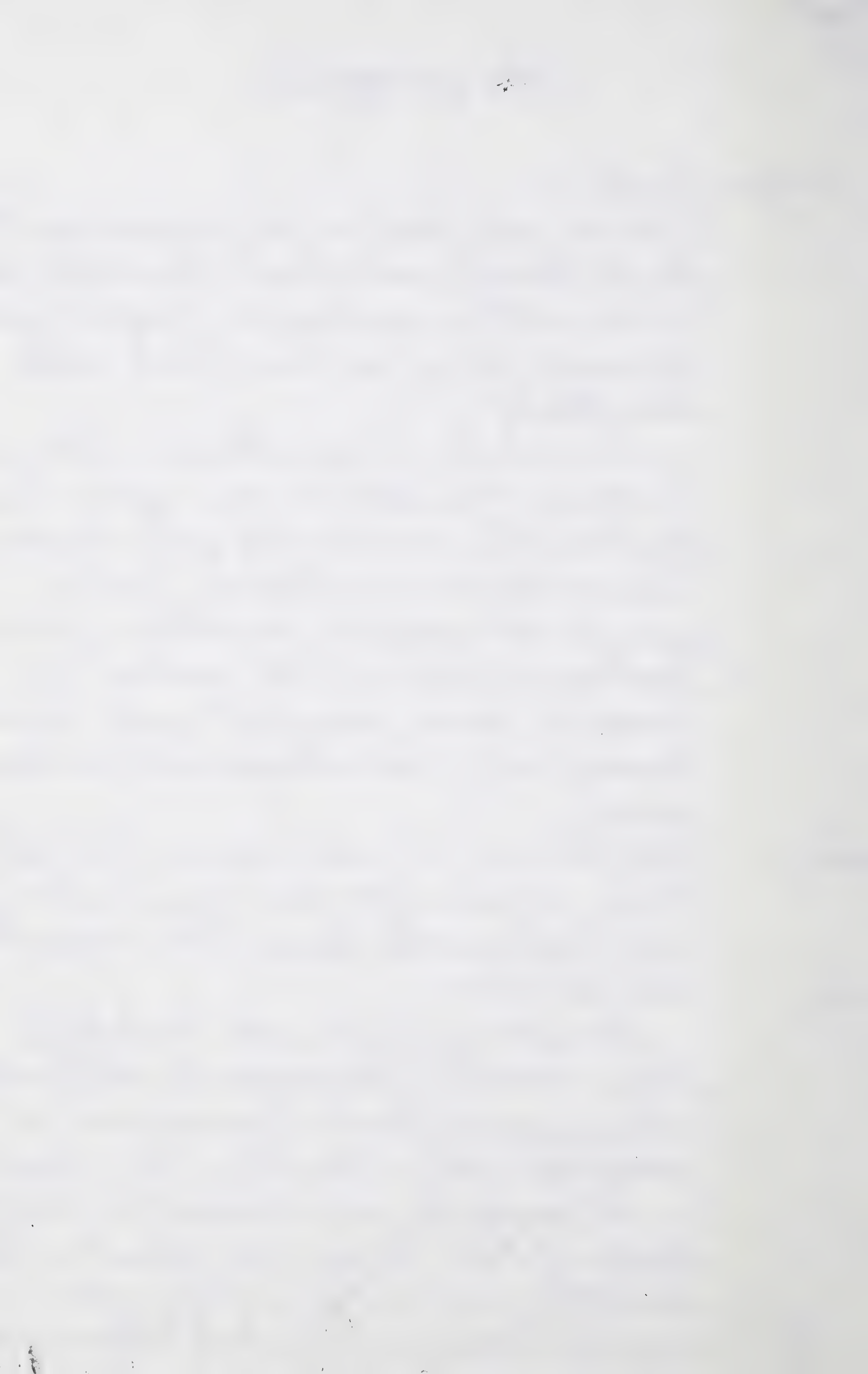
Colville River - a ♀ was seen on Starfish Bluff. A pair was also seen flying over some bluffs on the lower Colamnagavik.

7 July

Colville River

Devic #1 - on first night hard bluff below mouth Colamnagavik - cliffs above Colamnagavik had no peregrines or vulture legs - both in '32 - R2 in '56. Devic in old vulture nest at brink of cliff at edge of turf facing NW about 60 feet above the river. Lots of molting geese around. Falcon reluctant to leave nest. ♂ not seen. Contained 2 young ca 1 week

20 in  
all -





T. Cade

1957

Falco peregrinus

7 July

Colville R.

or less old. Peregrines here also in '66.

Alvie #2 - high long cliff on left side ca 1/4 mi below gyp Alvie #1.

♀ present on nest, ♂ not seen. nest on a ledge of sandstone outcrop ca 150 ft up on talus above river - ledge 20 ft above talus, 30 ft below top of outcrop, 100 ft below <sup>talus</sup> brink of upper talus. Ledge faces S. 4 young 3-4 days old.

See account under gyp Alvie #1 for notes on fighting behavior.

Alvie #3 - Lower Killik bluff - ♀ present, ♂ not seen. ♀ did not act too "possessive" of her area. A single added egg found in a scrape in soil at brink of top in a grassy area 200 ft above river on top of shale outcrop. Site faces W.

1/4 mi:  
down river  
from R. Nest

8 July

Colville River - no peregrine or vulture leg at gyp river nest, Bluff - as in '56

Alvie #4 - Double knife edge Bluff on the up river knife edge - Alvie on the "back" or "blade" of the ridge on bare ground in grassy area - ca 20 yds from the outer end of the ridge - in a scrape in the soil - ca 200 ft above the river.

♂ & ♀ both present & aggressive. 3 young 3-4 days old.





T. Code  
1957

Falco peregrinus

9 July

Colville R.

Denie #5 - at high cliff - last on left side before throat - pair very aggressive birds found ca 1/4 mi from roughlegs but could not locate denie. Went down 3 different places. Acting nest almost certain, however, from behavior of adults.

Denie #6 - a 2nd from last cliff on right before throat - pair of falcons seen - attacked the local roughlegs - ♂ small and very aggressive - did not climb this cliff but certainly have active pair.

Denie #7(?) - ♀ falcon seen on coal seam bluff opposite throat - a very barren ♀ - looks like same one seen there in 1952 & 1956. No ♂ seen. Cliff not climbed.

Denie #8 = throat nest pair.

31 July

Jago River (Entry from Cantlows Cillies)  
Cantlows and Cillies seemed an denie on the river about 12 miles below Jago Lake on this date. There was one fledgling which was photographed. They thought the birds were rusticolus but the photo shows a 2-3 week old peregrinus.





T. Cable  
1957

Falco peregrinus

July - Pitmegea River (entry from Childs)  
Two aeries were found by  
Childs on bluffs along the river  
above the gyrfalcon aerie. Peregrines  
were also seen at the gyrfalcon  
aerie on several occasions



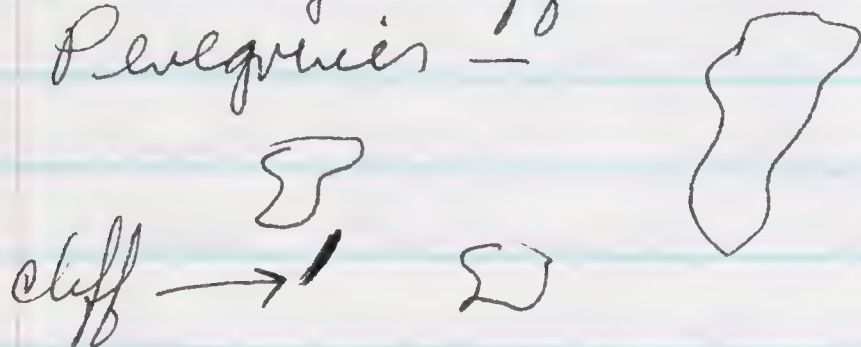


T. Code  
1958

Falco peregrinus

17 June - N of San Francisco

Just north of Vallejo, near two small reservoirs in the foothills, as pictured below, saw a fine looking cliff that might house Peregrines -



35 minutes out, just N of Clear Lake, there is a long line of rim rock on the crest of a ridge running east-west - also looks good for falcons. There is a dirt road running near it.

9 July Uniat, Alaska - Harold Griffin reports that there is again a pair of peregrines nesting on the down river side of Uniat Mt. He did not visit the nest but both adults were vigorous in defense of their nest.

22 July Colville River - above Olanumagavik to Killik Bend

#1 pair - ♂ & ♀ present on the lower part (down river) of the bluff on the left limit just up river from mouth of Olanumagavik. One large addled egg found on a ledge 100 ft up on sandstone outcrop and about 100 ft from top. Gained by climbing up from foot. Food remains: 2 fox sparrows, 1 pintail, 1 tern, 1 Lemmings, 1 tree sparrow.





T. Cade  
1958

Falco peregrinus

22 July

- cont

#1 aerie - The adult ♂ was collected.

#2 aerie - pair present on the first bluff right limit below Colamnaganik - nesting in rough-legged hawk nest (same one as last year). Nest 10 ft below brink, 20 ft above top of a footing talus & 100 ft above the river. Two downies, ♂ & ♀ about 2 weeks old - primaries & tail showing through down. Adult ♂ was shot as he came in to the nest carrying a juvenile longspur in his talons.

#3 aerie - an adult ♀ was seen on the lower part of the series of bluffs on the left limit in the town of the river below Colamnaganik but no actual aerie & no tiercel was seen. The ♀ showed interest in a recently vacated weaver's nest, but there were no young in it. There was an active aerie here last year.

3 July

Cohille River - Killik Bend to point ca 1 mi below double knife blade bluff -

#4 aerie - lower Killik Bluff - at 1130 one of the Peregrines was heard screaming & seen stooping at the local pair of rough legs. One of them was forced down into brush





T. Cade  
1958

Falco peregrinus

23 July cont

on top of the bluff. Both adult peregrines present on the bluff but not vigorous in defense. No nest could be found. One ledge had a lot of fresh droppings on it but no indication that there had been a nest this year.

#5 aerie - double Knife blade bluff - adult ♀ present about the up view Knife blade ridge but no tiercel seen. Three downies 2+ weeks old were found in a earth depression under dwarf willows on the top of the ridge about 20 yds from the drop off. 150 ft above river and ca 200 ft down the ridge from the brushy brink. This aerie only 30 yds away from an active rough-legged hawk nest, situated over the side of the brink below the falcons. One fresh Lepus lagopus remains near nest.

aerie #6 - right limit - first series below double Knife blade. Pair seen circling around one of the ant wops.

24 July

Columbia River - below double Knife to point ca 20 mi above Uniat -

aerie #6 - at 0045 the adult peregrines were seen stooping at a small passerine





T. Cade  
1958

Falco peregrinus

24 July

cont

over the river. I saw the tiercel deliver one close pass and the dickey fell into the river. Then the falcon came in low over the water making two passes and picking up the bird in her talons on the second try.

Alvise on a small ledge on outcrop of sandstone just below brink of a brush & talus slope - grassy area around nest ledge - accessible without rope, 200 ft above river, ~~ca 100 above upper bank where timber starts~~. 4 downies 2+ weeks old - primaries about 3" long. ♀ & ♂ present.

While in the area a gyrfalcon flew over and attacked the peregrines. (See under account of F. rusticolus) Later the ♂ peregrine was collected, and two young were taken. Food remains: readily identifiable items were wings of 1 black parus-like jay, foot of a peregrine Lagopus sp., wing of northern phalarope and 5 wings of tree sparrow.

Alvise #7 - pair of adults were seen on the small outcrop on the left point ca 5 miles above the last large bluff on the left. As we passed in the boat, we scaved up





T. Code  
1958

Falco pulegius

24 July

-cont

a pair #8 (out of sequence) was also seen from a distance on the outcrops on the west limit about 2 mi. away from the river. This site is upstream from #7. Not checked for active nest.

a molting goose (B. canadensis) which ran out of the water and started across a gravel bar opposite the cliff. The falcon made a shallow dive off the cliff at the goose. As she came over and let down her feet to strike the goose, suddenly stopped and squatted on the ground. The falcon shot by and the goose ran again - heading for the willow brush. The falcon attacked several times, and the tired joined her, but he made only feints at the goose - never getting in close at all. The falcon was actually trying to put her feet on the goose. Each time she came in the goose stopped and either squatted down or she stood upright and flapped its wings vigorously to ward off the falcon. Both maneuvers were effective because I never saw the falcon make contact. Finally she gave up and flew back to the cliff.

25 July

Colville River

At the same cliff in the morning we saw an excellent example of cooperative hunting. The ♀ flew off the cliff





T. Code  
1958

Falco peregrinus

25 July

cont

after a passerine - fox sparrow? - which went into some willow brush growing on a steep slope just up river from the cliff. The falcon then began making a series of passes just over the top of the brush back and forth, while the tiercel came out and waited on a ledge, her about 150 feet over the brush. They continued this tactic along the full length of the brushy slope (ca 1/4 mile). No bird got up. Then both birds soared up on strong wind and gradually drifted back to the cliff.

No active nest could be found on the bluff and the falcons put up no defense as we were climbing about. Indeed, the tiercel left the area.

# 9 aerie: pair of adults seen on the last bluff on the left limit before Uniat. Nest on a ledge 30 ft below a brushy brink & 20 ft up on a sandstone wall above a talus slope that drops 150 ft to the river. A freshly killed pectoral sandpiper was in the nest and a single downy 2+ weeks old - large ♀. The adult ♀ was collected and the young





T. Code  
1958

Falco peregrinus

25 July

cont

taken from the nest.

~~#10a~~ At the second high bluff on the right above Chuiat, an adult ♀ was found. She was hunting out from the cliff, and she also attacked a rough leg that flew into the area, but no active nest could be found.

Area #10: high bluff - first on right limit above Chuiat - pair on the down river side in an easily accessible location - small ledge on an outcrop mid way on the bluff - outcrop ca 20 ft high - nest at top - 100 ft above river and about 100 feet below break of slope where tundra breaks off. 3 downies just 2 weeks old - youngest of the broods encountered on the river. The nest area had green grass growing around it.

Area #11 - at the coal seam bluff on the right just above Chuiat a pair of peregrines was present. The female did not appear to be the brownish one of previous years. No nest was found and the adults were not vigorous in their defense of the area.

Counting the Chuiat pair, this makes





T. Code  
1958

Falco peregrinus

25 July

cont.

a total of 12 pairs of peregrines resident between Colanngogek and Chuiat Mt - the largest number for any year. It is perhaps significant that this abundance has occurred in a non-breeding year for gyrfalcons of the area. Of the ~~76~~ known nesting places of gyrfalcons on this stretch of river, only two were occupied this year by peregrines! Of the twelve pairs resident - only 5 are known to have young in the nest - 2 were undetermined, 1 pair had an odd led egg, and 4 pairs were either unsuccessful in rearing young or did not breed. In addition to these birds, a single ♀ was seen at a cliff which has always had a peregrine pair in the past - so there were possibly 13 nesting attempts on the river this year. Twelve pairs produced a total of 13 young to the age of 2-3 weeks - one brood of 1, one brood of 2, two broods of 3, and one brood of 4.

2 August Franklin Bluffs, Sagavaniktok River

With Kovana, I visited the local aerie about half a mile from the Saga camp. The aerie is located on a gravelly ridge - flat iron-





T. Code  
1958

Falco peregrinus

2 August - cont

about 100 ft above the view. Dive right on the back of the flat iron and easily accessible. Two young about ~~4~~<sup>3</sup> weeks old - primaries of oldest = 7", tail 3". Both young appear to be females. Food remains are mostly passerines - especially longspurs. No waterfowl remains. One golden plover - few other shorebirds. Large number of pellets collected, several of which had mouse remains in them.

8 August

OKpilak - The two juveniles taken on the Colville in the last week of July are now exercising their wings a lot and can flap up onto a perch 2 ft high. Today seen for the first time "play-killing" and "attacking" inanimate objects - chunks of twigs - willow twigs etc.

September

Uniat, Alaska - in the ~~early~~<sup>late</sup> afternoon at 1600 a juvenile ♀ was seen flying over the rolling tundra behind Red Hill. It was giving the food begging scream. At 1715 a penguin probably the same individual - was seen flying between T1 & T3 in an area where some ptarmigan had been seen a few minutes early. It was also screaming.





T. Cade  
1959

Falco peregrinus

12 May

China Bluffs, College, Alaska

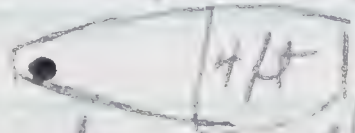
Pair of adults was seen flying around the bluffs, below the old trading post. Fresh remains: <sup>ruffed grouse</sup> ~~red-tailed hawk~~, <sup>red-tailed hawk</sup> ~~red-tailed hawk~~.

13 May

China Bluffs - examined the cliff for nesting. The small, low shelf ca. 2 x 2 feet square & sloping out rather abruptly - used in 1951 ~~was~~ was not occupied and showed no recent usage.

The large shelf where numerous remains of prey were found in 1950 measured as follows: 10 ft across at the back and 4 ft wide at widest point - slopes very gently outwards - covered with small chips 6-8" diam. many down to dust particles. One hole escape in rear end of the upper end of shelf - placed for 2 or 3 other openings on the ledge. Ledge is 15 feet above water and 40 feet below the brink - not accessible w/o rope.

Diagram of ledge



at least 2 other 2 x 2 foot sites are available on the same cliff - no indication that eggs were present - falcons showed little concern over my presence on cliff.





T. Code  
1959

Falco peregrinus

4 June Peters-Schroeder Lakes - At a point on "Butte" or about 6 mi NW of Schroeder L. in the upper edge of the foot hills province, a ♀ with 4 eggs was found on a shale bluff, facing westward. A pair of rough legs was also on the same series of bluffs about 300 yards up stream. The trivet did not put in an appearance while we were there - for ca. 20 min. Aerie observed by linealoo only. Aerie site 50 ft up from river & 50 below bank on a precipice of shale. Located on a mound of loose shale chips which had accumulated on a ledge of the bluff, from sliding above. Mound about 2 ft high and ca 4 ft dia at base. Flat surface on top where aerie located about 18" diameter (estimated from comparison with length of bird when she was perched on the nest. Site could easily be destroyed by further sliding from above but otherwise the location is invaluable except by rope. Altitude from map with 100 ft contours appears to be about 2200 feet.





T. Cade  
1959

Falco peregrinus

2 July Uniat - pair on Uniat Mt - site about  
30 yds upriver and a little below  
last year's site. Site at base of a  
small block of rock on a <sup>ca 4 ft high</sup> steep slope -  
100 ft from upper river & 160 ft above  
river! Site is a scrape on flat surface  
with an area of 2x2 feet - roughly  
square in shape. No overhanging  
rock - tall green grass growing on  
one side of site.

only

Fresh partly eaten adult ♀  
Calden Plover on a ledge a few  
yards from nest. ♂ & 3 eggs  
present.

July - August Cabrillo R. - few data on pairs seen  
from Eureka to Ocean Point see  
the section headed "Cabrillo Raptor  
Census."





Code  
1956

Logopus logopus

11 June Chukiat, Alaska

One seen in front of ARL hut at 0230 and a pair was seen west of there about 0300.

Several ♂♂ were seen in the afternoon. Courtship and territorial display is conspicuous.

12 June

About 6-8 were seen on the various view benches. More seen on the side of the hill, but probably are there, along the brushy creeks. Seen to be about the same number as in E2.

13 June

Three or four ♂♂ seen in the view bottom near the oil well. A nest with 7 eggs was found at the base of the hill just where Bearpaw Creek breaks out of the foot hills onto the upper view bench. It was located in a depression on top of a conspicuous Esicphorum hummock by the side of old wheel trail, about 30-40 feet from the nearest riparian brush. Hen flew off under my feet and stayed about 30 yds out while I was at nest.

Remains of ptarmigan are common all over, as usual. Several kills seen on Chukiat Mt.

14 June

Several local ♂♂ heard calling in the late evening

21 June

Several ♂♂ and a few ♀♀ seen on each day.

30 July

- several groups of 10-15 molting adults seen on the island below Chukiat. Perhaps 40 birds in all.





T. Cade  
1957

Logopus logopus

5 June

Two males in breeding plumage were seen flying across the Inuvik, and four other males were found stationed about half a mile apart along the left bank. They were all displaying and keeping very close to a restricted area of ground. This seems to be the northern limit of the summer range for the Barrow region, as none were seen away from the Inuvik.

8 June One ♂ in breeding plumage at the lake where we landed NE of Tekeetuk.

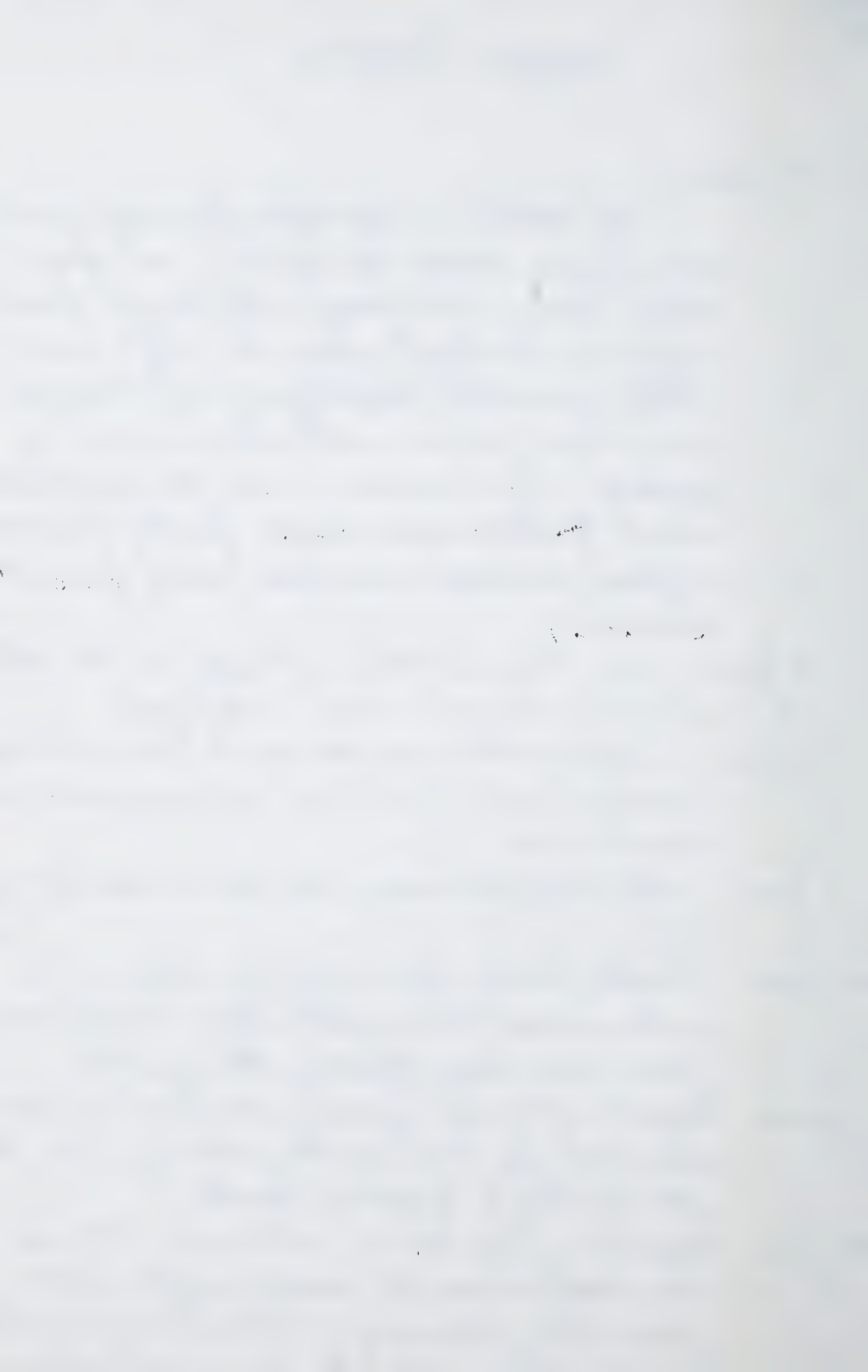
10 June Two males were seen on the tundra between Beaufort and Point Barrow - in hand, one at 1945 and one at 1952.

11 June old droppings seen in the areas of T1, T2, T4.

17-21 June, Unalakleet, Alaska - None seen in vicinity of 3 miles around the installation. Only a few were seen during the winter.

27 June Unalakleet - a single female was flushed along the road by T8 in the morning. She did not act like a breeding female.

30 June Unalakleet - flushed a cock and 2 ♀♀ on the bank along the road right across from the beginning of T8. One of the ♀s immediately went into strong distraction.





T. Code  
1957

Lagopus lagopus

30 June, Uniat

display and a nest was found at the base of a two foot high alder. It contained freshly hatched young - some still wet. There were 9 opened eggs and 7 young in and around the nest. Harold actually had his hand on the ♀, she was so fearless. By giving a "squeak," I could call her right up within 2 feet of me. Took several pictures.

at the base of the upriver slope leading to Uniat Mt. flushed another cock out of deep 4-5 foot alder brush.

1 July

Uniat & Colville R - saw none on our flight up and back from Olanuagovik river.

7-9 July

Colville River -

Not one live ptarmigan was seen or heard along the river, whereas in 1952 and 1956 many were seen.

15-16 July

Point Lay

None seen at this locality but Wagner M. Lokk says they occur and that he has seen broods take shelter under the modules at the site.

27 July

Pitt Point.

In the area of owl nest #4 an adult ♂ and 2 adult ♀♀ were in the company of 3 3/4 grown juveniles. When flushed one

probably  
flew to  
nests





T. Code  
1957

# Lagopus lagopus

27 July

Pitt Point

of the females gave a distraction display;  
the other did not.

probably  
fewer to  
nests

A little farther on south coast  
toward nest #3, a pair of adults  
and 3 half grown juveniles were  
flushed. The adults froze with the  
young and did not flush until I was  
ca. 3 feet from them. A gyrfalcon  
chased the female.

29 July

Pitt Point

Numerous winter droppings seen all  
over the drained lake SE of ite.

Aug (entry)

Ruparuk and Sagavogvik River

lagopus  
sp?

The Kovanda et al group saw  
quite a few along these rivers including  
nests, broods, and flocks of adults in  
the willows on the gravel bars and  
islands. These observations were made  
in July. Shank & Kovanda agreed that  
there were not as many ptarmigan on  
the Saga- as last year. More on the  
Ruparuk than on the Saga this year.

Melode River (upper) - O'Sullivan  
said that in June ptarmigan were  
very common - spaced out - all over  
the area.

Lago River - Sable and Canton





T. Code  
1957

# Logopus logopus

5 August

Jago Lake

said they have seen some in brushy areas of the view bottom. Apparently not very common, as I saw none on my walks on this date.

8 August

Jago Lake

refers to  
mutus

Two adults in full summer dress were seen in dense willow just below the upper lake where I have my mist net set. They were very "stare" and there may have been a brood around. In the afternoon I twice flushed a p tabuigan into my net, but it managed to get loose both times. Mesh too small to hold so large a bird.

7 August

Jago Lake

refers  
to mutus

One was seen in deep willow brush at T2-8.0. Like the other two which have seen, it was reluctant to fly - no brood around - and when pursued it escaped by running. Only when very hard pressed do they fly & then for only a short distance - 30-40 yards. <sup>These</sup> One apparently had only a few tail feathers and primaries may also have been missing - hence the reluctance to fly.





T. Cade  
1958

Lagopus lagopus

18 June

SE of Barrow, Alaska

On the flight with Maher and Shanks I saw a total of 4 males. These were all in an area south of Admiralty Bay and west of the Ikfipuk River. Maher saw several others from his side of the plane.

5 June

Coal Mine - Meade River - two cocks were flushed in close proximity in a willow area along the stream that flows past the village. This was ca 100 yds upstream from end of airstrip.

27 June

- one heard calling west of camp at 2330.

28 June

- one flushed out of a patch of dwarf willow near T2. Adult ♂.

30 June

- one seen between T1 & 2 in the late evening - same area where it has been seen before.

1 July

I shot and winged the ♂ which has been seen regularly in the vicinity of the fork in the nearby stream, but when I watched he came to ground on the opposite side of the creek, and by the time I had gotten over to the area, he had hidden in the dense dwarf willow brush and could not be found.

9 July

Uniat, Alaska - I flushed a male on the ridge between lower & second terrace in dwarf shrub - near T5.





Code  
1958

Lagopus lagopus

9 July - cont.

The same afternoon Don Crowley saw a brood of 3 flying young with 2 ♀♀ and a ♂, in brushy area near the airstrip.

14 July

Uniat - a single adult male was flushed along the road to Old Uniat between the airstrip and the crossing of Ceebe Creek.

2-25 July

Colville River - none seen between Olanegavik and Uniat.

2 August

~~Okpilak~~ Franklin Bluffs - Sogovaviktok  
Kovanda reports that he has seen no ptarmigan at this locality during his stay of several weeks.

3 August

Okpilak River - While the wolverine was running up the alluvial fan at Contact Creek, it flushed a ptarmigan which appeared at the distance to be lagopus. Several wolves had just been seen close up, and this bird appeared larger and with more white showing on the lower half of body.

7 August

Okpilak River

On Contact Creek at the point where it cuts into the wall of the valley, three ptarmigan kills were seen in the space of a dozen or so paces.





T. Code  
1958

# Logopus logopus

7 August.

One of these appeared to be an adult male Logopus in spring breeding plumage. Each shell was characterized by complete detachment of all feathers except a few primaries scattered out over an area of a square meter or so and by the lack of any bony remains except fragments of wing bones and breast. Characteristic of fox kills.

September

Mead River - Coal Mine - the remains of an adult male was found near ARL swamper. 100 yds S. The remains consisted of only of plucked feathers - some what broken up (chewed?) and the guts which were in a separate pile. Fox kill? The flight feathers were mostly still incompletely developed with soft, blood-filled quills.

September

Mead River, Col. - flock of 8 adults was flushed on upland ground midway between village and the area of T7 & 8. White wings, tail, heads & necks - rest of body still in summer plumage.

8 September

Mead River - a flock of 22-23 adults - all believed to be males - was seen on the upland tundra immediately west of the airstrip. All in mottled plumage.





T. Code  
1958

# *Logopus logopus*

- September Unnat - an adult ♂ in mottled plumage was seen on the tundra between T 5 & Alligator Road.
- Three fliers who came in from B after Island reported seeing several large flocks about 100 miles west of the Colville - some were in the heavens of the Colville River.
- September Unnat - At 1450 a flock of 5 adult males was flushed on the south facing slope between T 3 & T 1 beyond Red Hill. They were in mottled plumage - white wings, tail, neck & head - summer plumage still covering the rest.
- September Unnat - 4 adults were flushed out of the dense alder stand on the first terrace in the vicinity of T 8.
- September Unnat - 2 seen in the same area as above.





T. Code  
1959

# Lagopus lagopus

16 May Inuvik River

At a point on the Colvins trail 15 miles N. of the Inuvik a single cock ptarmigan was seen. At the sand dune area - across the river from the dunes - 3 more ♂♂ were seen and some aggressive chasing was noted. Later at a point on the right limit where the trail comes into the river 5 more ♂♂ and 2 ♀♀ were seen.

All of the males were in same stage of molt - the entire neck was in the brown plumage but the head was mottled - still mostly white. The two ♀♀ had mottled necks and heads.

Tracks and wing marks of ptarmigan were seen in two places on the snow near the goose well south of Barren the day before yesterday.

25 May

Pitmegea River - two males and one female were seen along the creek which bounds the upper end of the Study area. There were in an area where there were also tracks ptarmigan. Both cocks were displaying.





T. Code  
1959

# Lagopus lagopus

25 May Gout

with the rising flight and glide and the cackle, but territories did not seem to be defended.

There seemed to be some interaction going on between the willow and rock ptarmigan (3 ♂ & 1 ♀ of latter in the same area). Once when a willow ptarmigan flew and displayed at the end, a rock ptarmigan got up and flew toward the willow. Later, a rock ptarmigan flew to a conspicuous knoll on the right limit of the creek - on a ridge - soon a willow ptarmigan flew down the creek and landed in display flight about 10 yds from the mutus. The mutus then took off and flew over the ridge.

28 May

Pitmegea - two males were seen in the creek bottom ca 1 mile inland from the river. Again they were in close proximity to mutus and there appeared to be some display between the two forms.





T. Cade  
1959

Lagopus lagopus

19 June

Uniat - nest with 10 eggs on s facing slope east of Red Hill and below T3. On mowny-tussock heath ground with sparse stand of alders up to 3 feet high. Located in a depression under an alder bush 18" high - one egg cracked by weasel - emb has well-developed eye (lens), limbs present as buds - 25 mm long.

Mike Daniels reported finding a nest with 11 eggs a couple of days ago in a brushy area between camp and the Colville R. No others have been seen.

22 June

Uniat - eggs gone at the site reported above - no sign of shells or of ♀ ptarmigan - does not seem likely that they could have hatched so soon - predation? fox

4 June

Uniat-Killik-Kuvupa Lakes - on air stream up Colville valley, Killik valley across drainages of upper Olanovagvik to Kuvupa Lakes and return - not one single ptarmigan was seen.

26 June

Uniat - adult ♀ flushed off road to old Uniat - near T8 in the alder zone of the lower terrace. May have had a brood.





T. Code  
1959

## Lagopus lagopus

July

Cohille from Etivluk to Uniat - none seen along the river, although remains, some fresh, were found at gyrfalcon abutts.

24 July

Cohille below Anaktuvuk - an adult ♂ and ♀ were seen on a terrace on right bank of river. ♀ distracted as though young were present.

1 August

Cohille at Kihikvorak R. - juvenile ptarmigan found at peregrine abutts.

1 August

Cohille above Ocean Point - flock of 16, including 6-8 juveniles seen on upland back of peregrine cliff.

Peregrine attacked when I flushed - juveniles down, but adult ♂ flushed out before the falcon several times as if deliberately drawing the predator away from the young.

4 August

Cohille below Itkillik - 2 adults and 9 flying juveniles seen in willow brush along side glough.

5 Aug

Cohille below Itkillik - pair & seven young

7 Aug

Uniat - pair of ptarmigan near T8 acted like a brood was present - also one male heard cackling in the area.





T. Code  
1956

Lagopus mutus

25 June Uniat, Alaska

Two - a pair - seen on the ridge near T3  
back of Red Hill - alt. tide ca 600 ft.

12 August - In the same area a ♀ and 6 flying young  
were flushed - near stake 8.0 of T3.





T. Cade  
1957

## *Logopus nutus*

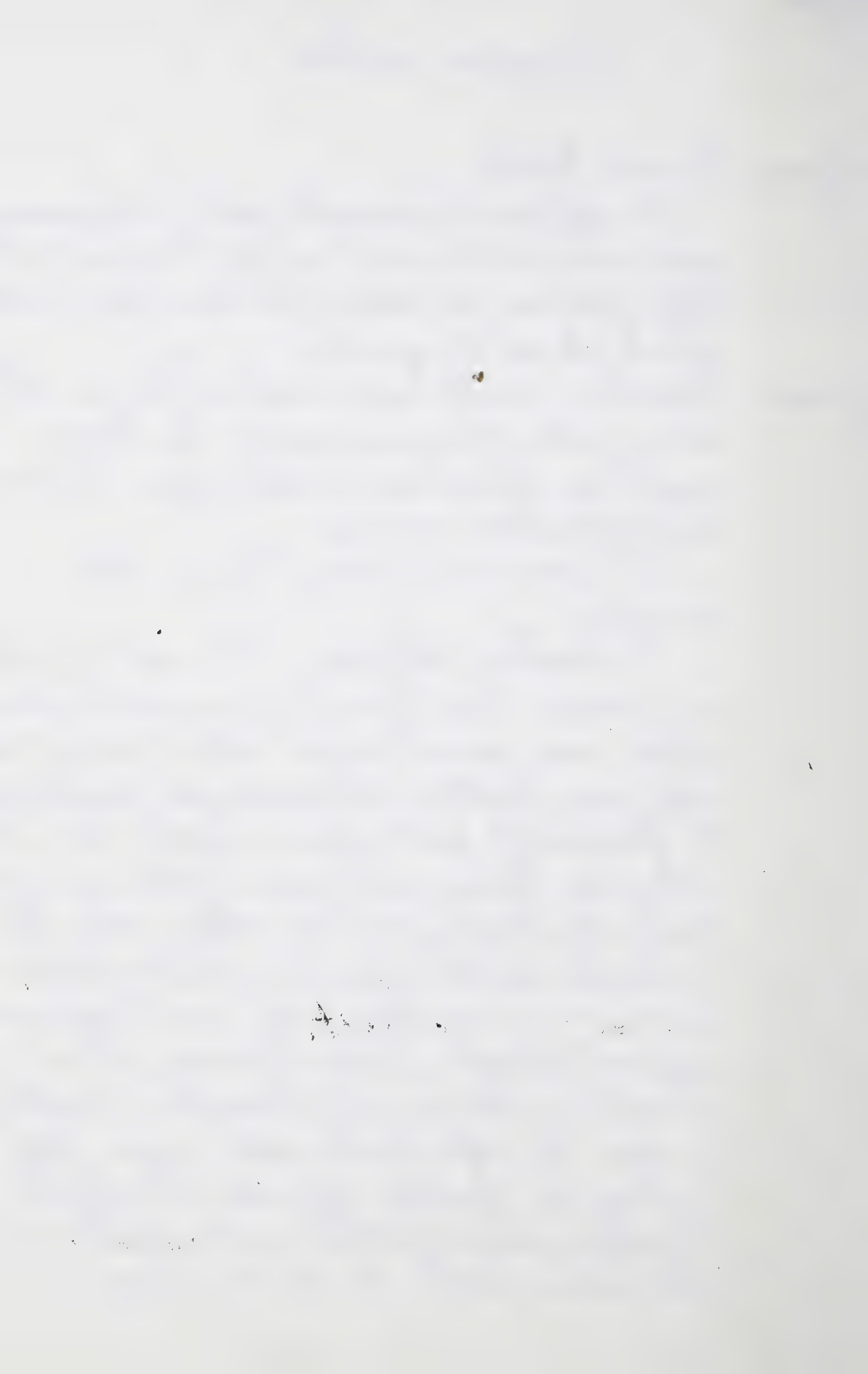
21 June, Unalakleet, Alaska

An apparently single cock, very wary, was seen at the west end of T3 back of Red Hill in the late afternoon. He would flush at 40-50 yards.

22 June, Unalakleet - male seen and shot in the same area this morning. In heavy molt on head neck and upper breast and scapular region.

A ♀ was seen along T3 in the evening.

Traveling between T3 and T7 ca 1/4 mi down hill from T3 on south facing slope, we saw a nest with 7 eggs. One egg was broken - others and nest undamaged. ♀ flushed off just before tracks hit. She was very tame and gave broken wing act. Nest was lined with dry cotton edge stems. Situated in the base of a little alder bush ca 18 inches high on Eriophorum tussock-heath-lichens tundra. Nest about 5 inches inside diameter. Marked a near by alder bush with paper bag. Embryo in broken egg was developed to stage where feathers were visible on the main trunk ca 30 mm long.





T. Code  
1957

## *Lagopus mutus*

10 August

Jugo Lake

Collected an adult in dense willow brush along the river in the area of T2 where a ptarmigan was seen yesterday.

Note: The accounts under *Lagopus lagopus* for 8 & 9 August should refer to this species. I am quite convinced that *Lagopus* has not been seen at this locality. Now that I think back, the same is probably true of the Pitt Point records. The adults looked the same as those here and I remember wondering at the time why the male at Pitt Point had no checkered breast feathers. I have a photo of this bird which should prove the true identity. I simply was not expecting *mutus* on the coast.

August

Jugo Lake - around 2300 I saw two fly very fast over the river just east of the lake and down into the river bottom. They flew just off the ground.

15 August

Jugo Lake

One seen in rocks on 2nd bench above the lake ca 1 mi upriver from camp.





T. Code  
1957

## *Lagopus mutus*

16 August Jago Lake

One seen by my mist-net at "Upper Lake." Very tame, as was the one yesterday. Could approach within 10 feet and even throw rocks without precipitating flight. Try to escape instead by running - but can fly when very hard pressed.





T. Code  
1958

Legopus mutus

3 August Okpilak River

Near the mouth of Contact Creek at the edge between high willow brush and dwarf shrub-heath complex of the alluvial fan, a ♀ and one half grown juvenile were flushed. The female was collected, but the juvenile flew into a wet area of high grasses and willows and could not be found.

A few minutes later two cocks were flushed along the edge of Contact Creek. One was shot. All were in full summer plumage.

Sable says that in his wanderings about in the high country between Okpilak and the Kula Kula River he has seen only two or three ptarmigan all summer, and Ralph Benwell has seen one.

August, Jugo Lake at 1545 I flushed two adult ♂♂ on the rocky moraine above camp near the little lake. One was shot as specimen. At 2230 another ad♂ was flushed on the moraine immediately west of Jugo Lake and another was heard in the area.

August Jugo Lake - an adult ♂ was shot along the willow lined stream 2 1/2 mi





Cade  
1958

Lagopus mutus

20 August cont.

above camp. Two more adult ♂♂ seen on rocky moraine by the little lake - one shot.

22 August

Jugo Lake - adult ♂ seen on the rock stripe by T6. My eyas falcon was flying in the area, and the ptarmigan refused to fly when I approached. It escaped by running in and among the rocks.

23 August

Jugo Lake - four adult males were flushed off the steep slope of the moraine on the east shore of Jugo Lake.

26 August

Jugo Lake. Between 2100 & 2130 two groups of ptarmigan consisting of 4 & 5 birds were seen on barrens type ground on the moraine east of the lake. When approached within 20 yds the birds flew up and away across the lake. Apparently they were roosting for the night on this ground. Being completely open ground they had ready access to escape by flight in any direction.





Code  
1959

Lagopus montus

- 21 May Pitmegea River - Three ♂♂ were seen on the first high ground north of the river and across from camp. One appeared to be acting territorial toward the other two.
- 22 May Pitmegea - one was heard by most seen on the ridge back of camp.
- 23 May Pitmegea - one ♂ seen at base of the main bank on the long ridge above camp on the right limit.
- 24 May Pitmegea - 2 males flew across the river below camp.
- 26 May Pitmegea - about 5 males and one female - latter collected - were seen along the creek that comes in upstream from camp. See notes under L. lagopus. Two males were seen in display flights and the ♀ that was shot was apparently mated to one of the 5 males, as it stayed in the area where she was shot.
- 27 May Pitmegea - heard on the ridge back of camp in the early morning <sup>one seen</sup> flying <sup>across</sup> the river.





T. Code  
1959

## Lagopus mutus

28 May

Pitmegea - a male, just beginning to molt on top of head and back of neck, was shot on the uplands back of camp.

Three other cocks were seen in the late evening along the creek ca 1 mi inland from the view.

31 May

Peters-Schwader - a male, just beginning molt on top of head, was seen on west side of lake at top of a fan in rocky area covered with tall willows. Bobby reports they are frequently heavy patches where they are feeding heavily on last years crop of blue berries, cran berries and cran berries.

June

Peters-Schwader Lakes - two males in white plumage were seen on the west side of Peters opposite camp - in the willow area next to the north from the one in which the shrikes are nesting.

June

Peters-Schwader Lakes - Total of 5 ♂ seen - all on the west side of Peters and high up on the fans and walls of valley. None seen in Whistler Creek. One per square mile would be a liberal estimate of density. Three Kills of white plumed birds were found.





T. Coole  
1959

Lagopus mutus

- 4 June Peters-Schroeder Lakes - on our walk down "Buttes" Cr and return over high ridge, saw 4 ptarmigan kills (fox?). One of these was a ♀ in spring plumage. There was the usual scattered feathers over several square feet, but no bones or fleshy remains. There was a pile of refuse and by this a single, perfect egg. No nest. Apparently the egg was in the orviduct at the time of kill and was either layed during the capture or simply fell out of orviduct when the bird was eviscerated by the predator. Still fresh. Took the albumin for electrophoretic analysis by Spofford. A single adult ♂ flew over the ridge N of Schroeder Peak on our return - the only live bird seen on the trip. Ptarmigan not abundant in this area.
- 6 June Peters-Schroeder - none seen along Carnivore Creek for 2 1/2 miles.
- 7 June Peters-Schroeder - 3 males seen on the west wall of Peters. Two observed from 10 yds - dark summer feathers scattered through white all along head and neck.





T. Code  
1959

Lagopus minutus

8 June Peters-Schroeder L. - a pair was seen in well-developed tundra meadow tundra on the large fan SE side of Schroeder. They did not act as though a nest was present, although I searched the ground where the ♀ got up. In addition a ♂ was seen high up on the same fan and a ♂ was seen on a little ridge on the lower reach of Whistler Creek. All three males were walking on heels and slightly on necks.

14 June - no seen on entire walk up and down Caribou Creek.

Dore Moore reported a nest with 7 eggs on valley side of Chamberlain Cr at about 3500 ft. on a shelf of mossy-dwarf shrub-heath tundra - nest was located at base of a shrub 8" high.





T. Cook  
1956

Oreos canadensis

19 June Uniat, Alaska

One was heard calling from the alder-marsh area between Uniat and the river

20 June One was seen and heard calling while flying in circles high up (ca 1000 ft) above Uniat

10 August Group of 5 seen flying in the area between T5 and T27.



T. Cade  
1957

Grus canadensis

15 July

Point Loe

On the north side of the No Holik ca  
1 mi above the lagoon a flock of 7 cranes  
was seen in the afternoon.

16 July

Point Loe

On the north side of the No Holik just  
opposite the site where they were seen  
yesterday, a flock of 10 was spotted. Very  
wary and flushed while I was better  
than 300 yds distant. They flew across  
the river, and later I saw 13 cranes  
grazing in a grassy meadow in that area.





Code  
1958

Grus canadensis

10 July

Uniat, Alaska

One was seen flying along the  
river bottom about 1400. It kept  
on up the river and out of sight.





T. Cade  
1959

Gulls canadensis

22 May

Pitmegea River - Two groups of 5 and 10 birds were seen about 1200 flying north toward the study area - high up. Just before they reached the study area the two groups coalesced and the birds began milling about in the air. Finally two birds broke from the formation and began to mill separately. After 5 to 10 minutes all the birds began moving south again and disappeared over the horizon. It began to rain shortly after that.

25 May

Pitmegea - Maher saw 6 on the bow back of the tent at breakfast time, and later in the afternoon we saw six flying SW over the upland tundra back of camp.













